UNIVERSITY OF BATH

Department of Education

HOW CAN A TECHNOLOGY-RICH POSTGRADUATE CERTIFICATE CURRICULUM INFLUENCE THE DEVELOPMENT OF TEACHERS' DIGITAL LITERACY?

This dissertation is submitted in accordance with the requirements for the degree of Master of Arts in Education (Learning and Teaching) by completion of five taught units and dissertation

LINDSAY JORDAN

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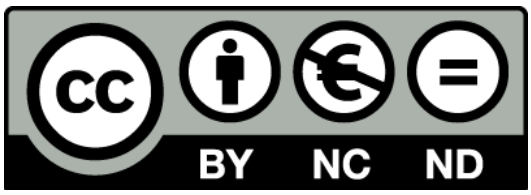

Abstract

This dissertation explores the impact of mandating the use of relevant Web 2.0 technologies on a Postgraduate Certificate course in Learning and Teaching in Higher Education. The study comprises the first cycle of an ongoing action research process that aims to increase teachers' competence and confidence in using technology effectively, and their willingness to experiment with appropriate technologies in their own teaching practice.

The methods used have been informed by previous research on digital literacy development, the use of specific Web 2.0 technologies in higher education, and the role of summative assessment as a driver for learning. Current practice in digital literacy development through academic staff development programmes has been explored and discussed.

During the study, course participants were required to complete a series of collaborative reading, writing and reflection activities on their individual blogs, and to produce a short video summary of their project outcomes to be uploaded to the University's OER database.

The first cycle has produced strong evidence of raised technical competence and confidence across the cohort, both in the use of appropriate software and hardware, and in sharing and discussing practice and their learning in an online space. Further exploration through feedback surveys enabled measurement of impact on participants' attitudes to learning technologies, on their current teaching practice and on their future plans.

The responses to the feedback surveys also revealed what aspects of the technological elements of the course participants found most challenging or frustrating. This information had clear implications for subsequent cycles and enabled the identification of recommendations for future practice.

Author Declaration

- The author has not been registered for any other academic award during the period of registration for this study.

- The material included in this dissertation has not been submitted wholly or in part for any other academic award.

- The programme of advanced study of which this dissertation is part has included completion of the following units:

  Research Methods in Education
  Understanding Learning and Learners
  Leading and Managing Educational Innovation
  Assessment
  Technologies for Learning

- Where any material has been previously submitted as part of an assignment within any of these units, it is clearly identified.

Lindsay Jordan
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Table of Contents

1. Introduction

As learning technologies have become more user-friendly, their affordances have become more far-reaching. User-centred 'Web 2.0' technologies facilitate new models of teaching and learning that pose a challenge to established, 'traditional' academic values and approaches. Engaging and supporting academics in the appropriate use of current technologies is the core business of e-learning teams across the UK Higher Education sector. The Universities and Colleges Information Systems Association (UCISA 2011) recently commissioned a series of case studies in response to this specific challenge, the contexts of which range from compulsory, credit-bearing professional development programmes to the stewardship of informal communities of practice. Increasing staff engagement with appropriate learning technologies is a core aspect of 'digital literacy development'; a relatively young area of enquiry, with the first significant body of research emerging in 2009 from the Learning Literacies in a Digital Age (LLiDA) project (Beetham et al. 2009). The JISC is currently funding a Digital Literacies project strand in collaboration with 12 HEIs and 11 professional bodies. The amount of funding (£1.5 million) the JISC is investing in these projects indicates the value this authoritative body places on research and development in this area.

Blogs are becoming one of the most widely-used Web 2.0 technologies in post-compulsory education, with blog-based learning activities having been used by educators since the mid 2000s (e.g. Flatley 2005, Maloney 2007, Paterson, Parvis & Murray 2009, Churchill 2011). As educators' collective understanding of the affordances and limitations of this technology improves, its use is now moving into the mainstream, led initially by the professional and creative education sectors but now expanding across all sectors (including compulsory education).

Key challenges and questions remain about the use of blogs in education; particularly around their limitations as a tool for facilitating discussion (e.g. Paterson et al. 2009), and the technical barriers to their use. Some research outputs (e.g. O'Donnell 2006, p8) have made initial recommendations for their effective use while acknowledging that more studies are needed. Few studies (such as Smyth 2009 and Jordan 2011) have reported on the use of blogs and other Web 2.0 technologies in professional development programmes for academic staff. The incorporation of Web 2.0 activities into graded assessment, although on the increase, is uncommon.

Even across the current strand of JISC-funded Digital Literacy projects, few studies have focused on the embedding of learning technologies within compulsory academic development programmes. Many Postgraduate Certificate courses (including the University of Bath's PGCAPP) offer an optional 'e-learning' unit rather than embedding a range of appropriate technologies into compulsory units. The danger of this approach is that it is less likely to impact on those teachers with the greatest need for digital literacy development.
In undertaking this study I am beginning to explore ways of developing digital literacy through academic practice programmes, and to develop my knowledge in this area in order to inform

curriculum design, student support choices, and the selection of tools and environments. The study is situated in the specific context of a blended Postgraduate Certificate programme in a collegiate Art and Design focused HEI, although many of the findings should be relevant across the HE and FE sectors. A significant proportion of our Postgraduate Certificate candidates work in hands-on craft disciplines and as a course team we often get the sense of an underlying and quite polarised debate about whether digital technologies are inherently 'good' or 'evil'. It is anticipated that these ideas and perceptions will surface in the conversations with participants throughout the various stages of this project.

It is likely that the study may also be of interest for participants on such programmes, in that it provides an example of how a joined-up approach to course design – utilising key principles such as constructive alignment and peer assessment, appropriate technologies and structured reflection – can achieve a variety of desirable outcomes including the identification of areas for improvement.

Through this dissertation I hope to put into practice many of the lessons I have learned throughout my studies on the MA in Education. In the unit Understanding Learning and Learners, for example, I undertook a review of current thinking around the connections between blogging and learning that resulted in a summary of recommendations for how blogging might be used to deepen student learning. Key areas of focus were the interactive and independent or collaborative nature of blogs, their capacity to facilitate the development of connections between topics, and their value as a tool for reflection on situations and experiences.

Following on from this, my assignment for the Assessment unit examined an online group role-play activity I designed and piloted with MA distance learners, and highlighted issues and recommendations around formative and summative peer assessment, and the facilitation of online collaborative work. Having continued my exploration of the role of online collaboration in learning through the following units Technologies for Learning and Leading and Managing Educational Innovation, this dissertation allows me to take this exploration further.

As I have progressed through the Masters programme, my teaching and curriculum design responsibilities have increased significantly. This has enabled my assignments to become progressively more practice-based, and the associated learning of greater practical use to me and to those who have read the resulting publications (Jordan 2009, 2011 & 2012). My new role of Course Leader gives me autonomy over the learning activities, teaching formats and assessment methods I use in my practice, and the continuation of my studies has provided both motivation and a structure for further development and reflection.

My intention is to interrogate the following statement:
When incorporated into programme assessment and supported by appropriate teaching and learning activities, the mandatory use of relevant Web 2.0 applications on professional development programmes can have a significant, positive influence on teachers' willingness to

experiment with appropriate technologies in their own teaching practice, and confidence in their ability to make effective use of such technologies.

In Chapter 2 I will discuss the significance of previous research and current practice in the use of Web 2.0 technologies in formal education, and digital literacy development of academic staff. Then, in Chapter 3 I will explain the design of the study and the various instruments and procedures used to evaluate impact. In Chapter 4 I will present and discuss a selection of outputs from the study in terms of their significance to the research question and thesis statement presented above. Finally, in Chapter 5 I will set out conclusions arising from the study.

2. Literature Review

The primary assumption inherent in my thesis statement is that Web 2.0 technologies have something significant to offer both learners and teachers. It is important to test this assumption by seeking evidence that both supports and questions it. In this chapter I have therefore analysed literature on Web 2.0 technologies and their relevance to formal learning environments and curricula; particularly in Higher Education. Further to this, I have examined literature that specifically deals with the role of blogging, and the sharing of practice through moving image, as these are the activities explored in this study.

The thesis statement suggests a means by which the desired development of teaching staff will be best achieved. In order to inform the methodology, it was necessary to complete a study of literature on staff development for digital literacy in general, and the appropriate use of Web 2.0 technologies in particular. I also surveyed educational developers at other institutions about the integration of Web 2.0 technologies within their CPD courses. The degree to which Web 2.0 use was incorporated into summative assessment appeared to be a key variation in the responses received, and further reading and analysis in this area concludes this chapter.

Web 2.0 and formal learning

Tim Berners-Lee, credited with the invention of the World Wide Web, *"always imagined the information space as something to which everyone has immediate and intuitive access, and not just to browse, but to create."* (Berners-Lee 1999, p169). The term 'Web 2.0' has often been challenged on this basis, as the idea of a Web where users create rather than merely consume it not an extension to the initial concept, but a central tenet of Berners-Lee's original vision. Web 2.0 technologies such as discussion forums, wikis and blogs may be referred to as 'social software' (Alexander 2006, p33), and the terms are often used interchangeably.

Much has been said and written in recent years about the role of Web 2.0 in enabling constructivist, collaborative learning. Owen et al. (2006, p28), in highlighting the personalisation that such technologies offer, state that that *"the gains of using social software are gains that come from collaboration. The value for education is clear."* One argument is that Web 2.0 technologies transcend boundaries of space and time, therefore enabling greater flexibility in collaborative work, for example through discussion forums. Another is that they provide an effective means of documenting, organising and presenting the process and outcomes of both individual and collaborative learning. A suitable example for this would be a wiki used to co-create content with associated discussion, contributor details and revision histories. In their report on the Tangible Benefits of eLearning, Ferrel et al. (2007) describe Web 2.0 technologies as having *"profound potentiality for inducing change in the HE sector",* and cite Franklin & Van Harmelen (2007, p29) in listing *"greater student independence and autonomy, greater collaboration, and increased pedagogic efficiency"* as *"catalytic effects".*

Whether Web 2.0 and other digital technologies are associated with a distinct 'digital pedagogy' has been hotly debated in recent years (e.g. Beetham & Sharpe 2007, Weller 2007 and Salmon

2002). Many would agree with Ullrich et al. (2008) that Web 2.0 pedagogy is best associated with constructivism and social learning, neither of which are particularly new ideas in education. However, while student-centred approaches to learning and teaching are well documented in pedagogic literature, didactic, teacher-centred approaches often persist as the dominant pedagogy in Higher Education. The encroachment of Web 2.0 technologies into learning communities - through disrupting the perceived power balance between teacher and learner - may pose a challenge to established academic values and approaches. Owen et al. (2004, p4) write about educational agendas shifting in favour of the creation of *"personalised and collaborative learning spaces"* that transcend the established boundaries of formal education and provide access to people and knowledge beyond the academy. Requisite for this approach is teaching individuals how to learn; specifically how to drive, manage and document their own learning as they navigate these new spaces and create their own knowledge. This may mean more than simply acquisition and organisation of knowledge; as Owen suggests, these technologies *"provide a mechanism for transformation in education that includes... creation and assessment of knowledge"* (p58).

Franklin & Van Harmelen (2007) point out that the emergence of Web 2.0 technology is not the sole driver of these changes, but part of a rapidly changing HE landscape where there is increasing pressure on institutions to develop better learning and teaching methods and more efficient systems. They argue that appropriate use of technology is *"translating into improved satisfaction, retention and achievement"* and *"allowing broadly the same numbers of staff to educate a larger and more diverse student body".* If this is true, there is a strong case for developing institutional capacity for the appropriate use of learning technologies.

Blogs

Blogs are rapidly becoming one of the most widely-used Web 2.0 technologies in post-compulsory education, having been used for reflective and/or creative learning activities since the mid 2000's (e.g. Flatley 2005, Maloney 2007, Paterson et al. 2009, Churchill 2011).

Anderson (2007, p7) cites Doctorow et al. (2002) in defining a blog as *"a simple webpage consisting of brief paragraphs of opinion, information, personal diary entries, or links, called posts, arranged chronologically with the most recent first, in the style of an online journal"*. Most blogs also allow readers to add comments. This posting and commenting process contributes to the nature of blogging as a *"weighted conversation"* (Benkler 2006, p217) between a primary author and their peers.

Results from a similar study to this one, undertaken by Churchill (2011), led to the recommendation that particularly useful blog-related activities for learning are likely to be:

- accessing and reading blogs of others,
- receiving comments from others, and
- previewing completed tasks of other students and reading feedback received in relation to these tasks.

Churchill also emphasises the potential of blogs as digital portfolios that can be used for the documentation of progress and the evaluation of learning. He explains how the commenting functionality enables continuous formative evaluation, providing a single platform where assessment and learning can be integrated. Churchill offers several conclusions and recommendations for the successful integration of blogs into postgraduate curricula, which are discussed later on.

Key challenges and questions remain about the use of blogs in education; Paterson et al. (2009) explore their limitations as a tool for facilitating discussion, and several (e.g. Williams & Jacobs 2004, O'Donnell 2006, Shoffner 2007) have highlighted the technical barriers to their use. While these studies have made initial recommendations for their effective use, all have concluded that more studies are needed.

O'Donnell emphasises that *"blogs should not be seen merely as a technological tool for teaching and learning but as a situated practice that must be brought into appropriate alignment with particular pedagogical and disciplinary practices"* (p5). Web 2.0 technologies are not merely labour-saving devices that enable us to do the same things more efficiently. They correspond to a shift in perspective of what it means to learn and what it means to teach. In promoting their use we first need to prepare the ground for emphasising the benefits - for example, a teacher needs to appreciate the role of group work in learning before they can understand the value of collaborative technologies and use them appropriately.

Arguments against the use of blogs in education (as articulated by several of my own students) include the perceived inferiority of online communication and collaboration, or at least that a significant amount of face-to-face contact is needed in order for online group work to be successful. Another common argument, echoed by a number of e-learning professionals in my personal learning network, is that the *"use of blogs for educational purposes kills their spirit"* (Paterson et al. 2009, p2). This perspective is often voiced with reference to the mandating of blogging activities and their incorporation into summative assessment, which is discussed further below.

Sharing practice through Digital Media or Moving Image

While Bawden (2008) claims that digital literacy is *"a topic whose terminology is very confused"*, there is still significant support for Gilster's (1997) simple description of digital literacy as the current form of literacy itself; the ability to deal with information in today's dominant and emerging formats. Since Kress (2003) spoke about the *"new dominance of the image . . . [and] the medium of the screen"* (p1) over the prior dominance of writing and books, several authors (e.g. Dobson 2011) have argued that learning how to communicate in these modes should be incorporated into curricula.

2005 saw the launch of Youtube (www.youtube.com), through which over 4 billion hours of video are viewed every month, with users uploading 72 hours of content every minute (Youtube 2012). It can now be argued that moving image is a dominant format for information, or what Dobson

(2011) terms *"semiotic, meaning loaded forms"*. With this in mind, Kress' (2003) and Dobson's (2011) arguments can be applied to support the notion that curricula in learning and teaching development should include learning to communicate one's ideas and actions through moving image.

Staff development for digital literacy & the use of Web 2.0 in learning & teaching

As stated in Chapter 1, 'digital literacy' is a relatively young area of enquiry. Following on from the LLiDA report (Beetham et al. 2009), the JISC invested £1.5million in its Digital Literacy project strand, involving 12 Higher Education institutions and 11 professional bodies including the Association of Learning Technologists (ALT) and the Staff and Educational Developers' Association (SEDA). The Universities and Colleges Information Systems Association (UCISA) recently commissioned a series of case studies in response to the specific challenge of engaging and supporting academics in the appropriate use of current technologies, with examples of good practice ranging from compulsory, credit-bearing professional development programmes to the stewardship of informal communities of practice. A case study of the planning and interim findings of this project is included in the UCISA series (Jordan 2011).

A JISC (2011) briefing paper in support of grant funding for digital literacy development states that *"teaching practice is critical to the development of learners' own attitudes and capabilities"* (p25); that is, teachers who use current technologies appropriately with their students will be supporting the development of students' digital literacy. It follows on from this that professional development programmes which require teachers to use current technologies appropriately will support the development of teachers' digital literacy. Unsurprisingly, this arises not only within the JISC's arguments for supporting teaching staff in digital literacy development: *"Interventions in CPD... can have a long-term impact on professional practice and consequently on the learning experience of future students"* (p4), but also in the concluding recommendations for enhancing the digital literacy of teaching staff: *"Professional development frameworks are a valuable tool for embedding new expertise and practice"* (p25). These findings provide a strong rationale for the incorporation of learning technologies into academic staff development programmes and initial teacher training provision.

The embedding of such technologies into curricula (as opposed to offering development in this area as an 'add-on') is supported by the LLiDA report (Beetham et al. 2009), which concludes that *"digital literacies are developed and progressed most effectively when technologies are integrated into authentic activities that fulfil educational or scholarly goals"* (Messages and Implications). In addition to being recommended by the JISC (2011) as an appropriate approach to developing teachers' digital literacy, the embedding of technology use within CPD programmes for staff has been researched by the Higher Education Academy (Westerman and Barry 2009), with a project report concluding that this approach enables participants to see the wider relevance and also - more importantly - engages a full cohort of staff with the skills and issues around the use of learning technologies as opposed to only those teachers who already have an interest in the area. These arguments tally with a recent experience of my own; a project I carried out with the previous year's Postgraduate Certificate candidates on embedding

the use of video for recording peer feedback (Jordan 2012) inspired several participants to start using this technology effectively with their own students.

While there is a strong argument for embedding appropriate Web 2.0 technologies into generic academic staff development provision, I suspect no-one who actually works on these programmes would suggest that this is an easy thing to do. While Alexander (2006, p42) claims *"it is much simpler to set up a del.icio.us tag for a topic one wants to pursue, or to spin off a blog... than it is to physically meet co-learners and experts in a classroom",* he may be right - but setting up a del.icio.us tag or a blog is not the hard part; one then has to get people to *use* them. At least when teachers are gathered in a physical space, one can do virtually anything with them within reason; the pressure of social expectation will deter them from walking out. Persuading people to engage in online activities in their own space and time requires careful planning and the concurrent use of a number of different strategies. Churchill (2011) recommends the following for encouraging and sustaining the use of blogs with postgraduate students, all of which have been incorporated, to a certain extent, into the design of the Learning & Teaching in Art & Design unit:

Strategies for ensuring participation:

- regular learning tasks which require students to present outcomes in their blogs;
- blogs being an assessment requirement of a course, and
- regular blogging by a teacher.

Strategies for increasing the value of participation:

- regular monitoring of all students' blogs, whenever appropriate leaving trace of a teacher's presence by commenting;
- developing weekly summaries of what has been taking place in the blogosphere and discussing this with the students so that they recognise that issues from their blogs are considered, and
- inviting students to contribute to specifying the assessment criteria to be used for their blogs/digital portfolios.

Churchill describes this second set of strategies as creating *"an ambience in which students feel themselves to be important members of the classroom community, and that their needs and opinions are recognised and addressed"* (p156).

Another major challenge is that, while Gilster (1997) claims that digital literacy is about mastering *"ideas, not keystrokes",* my experience with teachers suggests that this is in itself a threshold concept that is only easy to grasp if the keystrokes don't bother you. This suggests an uncomfortable paradox where one needs to grasp the concepts in order to master the technology, and master the technology in order to understand the concepts. One way of addressing this with teaching staff may be to introduce a little of one, followed by a little of the other, and so on.

Use of Web 2.0 technologies in professional development courses for academic staff
In July 2012 I wrote to the SEDA mailing list with a request for information on the extent to which other institutions were using Web 2.0 technologies on their CPD courses. I explained that I was particularly interested in those who were mandating the use of Web 2.0 tools through graded assessment, but also in those who were supporting or promoting the use of Web 2.0 tools in other ways.

I received five detailed responses, which are summarised here:

One course leader told me: *"...we do not mandate any use of Web 2.0. Generally I find the online attendance very poor on our PGCLTHE and participants say they really value the face to face aspect of the programme and the 'time out'. For this reason we have been able to avoid having to make much of the programme online."* The wording used here implies that there would have been an element of resistance within the programme team to incorporating more (or mandatory) online activities, and that the preference specified by the participants had been useful in defending the status quo (against pressure from what or whom, is not clear).

A lecturer in Technology Enhanced Learning at a second university described the 20 credit optional unit in Preparing for Online and Distance Learning offered as part of their newly validated MA in Higher Education, in which a blogging task counts for 40% of the unit grade (the remaining 60% is allocated to a project plan).

I had the opportunity to extend the e-mail exchange with a third colleague at a face-to-face event; at this institution Postgraduate Certificate candidates use a discussion forum and a journal during the core module. These tasks do not contribute to the module grade. An optional module on e-learning is available, which incorporates an assessed online journal.

A fourth colleague wrote to me about a PG Cert/PG Dip/MA in Blended and Online Education. This programme is fully online, incorporating extensive use of Web 2.0 tools, and a case study of the programme design and impact on practice has been published (Smyth 2009). While this programme is aimed specifically at those who teach on online and blended courses, internal staff are generally funded by their School or Faculty, and the programme sits alongside a number of other institutional initiatives to encourage the appropriate use of technology within taught programmes.

Only one of the five responses gave an example of mandatory Web 2.0 use on the core modules of a generic PG Cert programme (the Postgraduate Certificate in Learning & Teaching in HE). On this programme, participants use blogs for a formative activity in the first module and as part of mandatory summative assessment in the second. The course leader wrote: *"In my experience – no research data just anecdotal from module feedback – the take up of blogs has been very positive by those new staff who participate in this coursework, many of whom are now real champions of using learning technologies in their departments."* My colleague also pointed out that the need for HEA-accredited programmes to incorporate the dimensions of the

new UK PSF should see a move to the inclusion of *"the use and value of learning technologies"* (Core Knowledge 4) into CPD curricula.

The five examples summarised above illustrate a range of approaches, from focusing on face-to-face, to developing specialist provision, encouraging Web 2.0 use within a core module, and mandating it through graded assessment. As this final approach is the one I have taken in redesigning UAL's core Postgraduate Certificate curriculum, it is worth exploring the theoretical rationale for it.

Incorporation into summative assessment

Biggs & Tang (2007) talk about the need for intended outcomes, teaching and learning activities (TLAs) and assessment to be aligned in order for the desired learning outcomes to be achieved. Following the principle of constructive alignment; if one of our desired outcomes is the development of participants' digital literacy, this needs to be incorporated into the assessment of the course. While this argument sounds straightforward, it should be noted that mandating an activity through summative (graded) assessment will change how the activity is perceived by students, and may be demotivating in some cases, as discussed below.

An additional dimension to the situation is how we ensure that the teaching and learning activities - the stepping stones between the specification of desired outcomes and the assessment of them - actually take place. As discussed earlier in this chapter, it is relatively easy to get people to participate in activities when they are in the same physical space as you, and relatively obvious whether an activity is achieving the desired outcome, or if an alternative approach is needed. Achieving a similar level of participation and feedback in online activities, when participants are no longer immersed in the learning environment but have returned to their professional and personal lives, juggling a multitude of conflicting demands and desires, is virtually impossible without the direct influence of assessment.

There is an argument, therefore, in support of blending TLAs and assessment together where the activities are to be completed online and/or at a distance, in the absence of interim face-to-face events and activities that can drive preparatory work (such as presentations or student-led seminars). I discovered this myself several years ago when redesigning an online distance learning programme in Construction Management (Jordan 2009). As Cowan (2005) writes; *"Assessment is the engine which drives student learning".* Race (2005) describes assessment as *"inescapable".* In the absence of sufficient intrinsic motivation to eclipse the many other demands and desires experienced by learners working at a distance, assessment can be used to enforce learner activity. This is perhaps not an ideal situation, and there are two main arguments against this approach:

One is that, by merging TLAs and assessment into one, we are removing the opportunity for learners to practice and develop their capabilities before having them measured. This is a valid argument but it is not without a solution, which is to assess the *process* of learning rather than just the final *outcome*. This approach is discussed at length by Bourner (2003) and Lindstrom

(2006) among others, with reference to the assessment of reflection and creativity respectively.

The second argument, as encapsulated on p6 in the Paterson et al. (2009) citation, is that by mandating an activity, one removes the element of intrinsic enjoyment; of doing something for the love of it rather than for extrinsic gain. This argument is hard to dispute, although we can certainly question the assumption that, by making a task mandatory, someone who would otherwise have enjoyed that particular task would then find no (or less) pleasure in it. We can also question the notion that those who do something for enjoyment always achieve more than those who are driven by other factors (although fanatics of Malcolm Gladwell's (2008) popular book 'Outliers' might be convinced of this). This second argument may also be valid, but if mandating an activity through assessment means that 95% of learners are helped to make that choice to engage with it, a loss of 'spirit' for the 5-10% who would have engaged anyway does not seem like an unbearable sacrifice.

Feeding into this second argument may be the value to learners of having a sense of ownership over tasks and environments; a phenomenon Garrison et al. (2001) term 'social presence'. This perspective has not been ignored in the design of the intervention, but has informed key design decisions, for example the use of individual blogs over group or tutor-owned blogs, autonomy over choice of formats and media, and the ownership given to participants of the assessment of the blogging tasks. The intervention itself, and its evaluation, is described in the following chapter.

3. Methodology

Rationale for working within an Action Research paradigm

In undertaking this study, my aims are to achieve positive, ongoing change in my professional practice, and increase understanding of the issues around digital literacy development - both for myself and among the wider community. It is also important that I involve my students in the study in order to give them an opportunity to experience the development and evaluation of teaching practice and curriculum design from a learner perspective. Taking on the role of the learner is often cited as one of the most beneficial aspects of the Postgraduate Certificate course by graduates of the programme, as it allows participants to reflect on the role of the teacher from a student perspective. It follows on that observing a teacher identifying and taking action to enhance their practice will provide them with insight into how they might do the same. These aims are consistent with Participatory Action Research. The cyclic or spiral nature of Action Research as described by Lewin (1946, p205) fits with my personal commitment to ongoing development and enhancement of the courses I lead, which are, in any case, subject to an annual review and revision process. My expectation is that an ongoing action research process will complement and enhance my evaluative and reflective processes, and the annual review and revision of my learning activities, teaching formats and assessment methods.

A more quantitative, reductionist methodology would not have been appropriate in the context of this study, as most of the data required for evaluation (gleaned from open-ended survey questions, tutorials and online individual and discursive tasks) would not adequately capture the truth of what has transpired without further interpretation.

According to Dick (2009, p3), the action research cycle allows for rigour and responsiveness, but may be simple, short, and/or small in scope. In the context of a Masters dissertation, which must be thorough but concise, such flexibility is useful. This dissertation deals with one complete cycle of action research, undertaken during the academic year 2011-12. The second cycle is underway as I am making the final edits to this report.

From the outset of the study, my intentions were that there should be equal emphasis on action (the documentation and evaluation of an intervention, and the planning of future action), and research (developing an understanding of what happens as a result of the intervention), and my expectation was that each of these would inform the other. While the enhancement of practice is my ongoing priority, the development of digital literacy is a relatively new field. My understanding from discussing this over the last twelve months across a number of networks (e.g. SEDA, JISC Learning & Teaching Experts, Twitter), is that there are few course leaders that embed technology use into academic practice curricula to the extent that is described here. I feel that a thorough evaluation of what is occurring in my own practice will be valuable in developing my own and others' understanding of this field, in order that appropriate future action can be identified. Carr's (2006) claim that action research initially emerged to address *"the widespread failure to translate the findings of social scientific research into practical action"* (p3) supports my intention that an action research process will help me to be responsive to what is happening and

to apply my understanding to future practice.

A participatory action research methodology, where the community - in this case the teaching staff undertaking the Postgraduate Certificate - are actively involved as co-researchers, has many potential benefits beyond the enhancement of participants' own learning as discussed above. I felt that encouraging students' participation from the outset (by keeping them informed of the development of my research proposal and asking for their input) would increase their sense of joint ownership of the project, and the quality of their engagement in the data collection process. Indeed, one of my tutees told me after completing the course that he felt he had a stake in the project, and that this had been a motivating factor in providing considered and objective responses to my surveys; he was not only interested in the project's conclusions, but also felt partially responsible for their accuracy. Another participant told me during a tutorial that, as the cohort were undertaking small-scale action research projects at the same time, she found it useful to observe how I approached the design and execution of my own project, and to have an opportunity to critically engage with the process from a participant perspective.

The intervention

The intervention documented and evaluated in this study comprises the first cycle of ongoing research into the design of the core Postgraduate Certificate curriculum, specifically its efficacy in developing the digital literacy of teaching staff. Having explored the benefits of embedding technology use into staff development programmes in the previous chapter, this study focuses on two such areas of activity. The first area is the introduction of blog-based reading and discussion activities into the Learning & Teaching in Art & Design (L&TAD) unit. As discussed in Chapter 2, blogs offer the capacity for 'weighted conversations' that are initiated and moderated by a particular individual, but allow ongoing collaboration at a distance, over a period of time. This seemed appropriate for the Postgraduate Certificate community as while they are on the course their learning needs to be assessed on an individual basis. Also, both during and after the course, participants benefit from networking and learning from each other while situated in their own colleges and immersed in their own practice. The use of blogs is particularly relevant to art and design education, as the chronology inherent in their structure promotes the ongoing recording of process in a format that supports visual elements (e.g. video and still image). As argued in the previous chapter, the effective use of collaborative learning technologies depends on an appreciation of the value of collaborative learning *per se*; for this reason a great deal of care was taken to maximise opportunities for group work during the two days of face-to-face study at the start of the unit.

The second area of activity was the production of project outcome summary videos for the Teaching Development Project (TDP) unit. The rationale for bringing this element into the unit assessment was to ensure – as discussed in Chapter 2 - that project outcomes were made accessible to the wider community in a current, 'dominant' format, and that participants left the course with the skills and confidence to continue this practice.

In the L&TAD unit, participants were required to complete one reading and discussion activity

per month over five months. The briefs for each of these activities, with links to examples of participant responses, are presented in Appendix 1. As discussed in the previous chapter, it was clear that the activities would need to count towards the final grade in order for the whole cohort to participate. Participation in the blogging activities carried a 10% weighting on the unit grade and was to be self and peer-assessed according to criteria selected by the participants within their learning groups (in accordance with Churchill's (2011) recommendations presented in Chapter 2). Criteria selection, and the writing of band descriptors, was completed by participants during a workshop day at the start of the unit (Appendix 2). As discussed in the literature review, the resulting band descriptors were moderated to ensure process criteria (e.g. commitment to developing understanding, application of theory to practice) were emphasised over product criteria.

10% was a lower weighting than I would have liked. I had confidence in the activities and the learning environment, having tested similar tasks on a voluntary basis with the previous cohort, and felt that a 10% weighting would not be sufficient to encourage or justify deep engagement. However, it was felt among the team as a whole that such a substantial departure from the old curriculum and assessment methods carried a significant risk of failure, so a low weighting was agreed upon to mitigate that risk, and to reassure the validation panel.

Participants attended a blog set-up session as part of the initial two-day workshop where they signed up for an account, adjusted key settings, and added the URL of their blog to the group directory. In advance of this session participants were required to prepare a paragraph of text that would form their first post (see 'Introductory Activity' in Appendix 1), which many participants managed to publish during the session. The five briefs were then made available through the virtual learning environment (Blackboard), with each being released on the first and taken down on the last day of the month. The regularity of the tasks and their contribution towards the unit grade is consistent with Churchill's (2011) recommendations presented in the previous chapter. My intention was to also to follow Churchill's other recommendations in producing regular summaries of the activity emerging from the blogs, and to monitor participation closely in order to target support appropriately. While this was possible in the early stages, the overlapping second core unit, and the ensuing increase in workload, unfortunately resulted in these intentions falling by the wayside in the first cycle.

Mid-way through the L&TAD unit, participants were required to complete an interim peer and self assessment of participation in the blogging activities (Appendix 3). This was intended to stimulate discussion and raise the level of consciousness around the activities, to encourage the sharing of strategies for effective participation, and to give participants an opportunity to practice using the criteria and band descriptors they had worked on three months earlier.

For TDP, participants were required to produce a three minute video summary of their project and its outcomes. This was to accompany their project report (see Appendix 4 for assignment brief). As discussed in the previous chapter, the summary was assessed according to process criteria – in this case, the commitment demonstrated to sharing project outcomes clearly and

accurately – rather than on product or outcome criteria (e.g. the quality of video production). Concurrent with the aims of the activity in ensuring wider dissemination of project outcomes, participants were required to upload their video summary to the University's OER database, Process Arts (http://process.arts.ac.uk/content/cltad-teaching-development-projects).

Data collection methods

In addition to usage statistics on the blog server and the grades and feedback awarded through the peer and self assessment process, data was gathered through two surveys. The first (Appendix 5) focused on the blogging activities in the L&TAD unit, and the second (Appendix 6) on the video summary activity in the TDP unit. The surveys asked participants:

Q1: What they felt were the benefits of doing these activities
Q2a: What they felt were the challenges of doing these activities
Q2b: What strategies they found helpful in addressing the challenging aspects
Q3: How this aspect of the course had changed their perspectives of online learning

Q1 was designed to find out whether the activities were, in fact, perceived as beneficial by the candidates, and how their views on the specific benefits compared with my own. Q2 was designed to answer three key questions; what skills participants had developed as a result of the activities, how they had developed these skills, and what could be done in future to make the process less frustrating or disorientating for the participants.

The wording of the final question was chosen in preference to asking directly what impact the activities had had on participants' digital literacy, not so much out of concern that respondents were unfamiliar with the phrase, but because I wanted to capture general changes in attitude that would impact, or had already impacted, on their professional practice as teachers, as well as their own learning behaviours. Examining the responses to the first survey, where some respondents had interpreted the final question differently to how I had intended, led me to revise the wording in the second survey to *"How do you think this aspect of the course changed your perceptions of the role of technology in learning?"*

Recruitment of participants to the study

In this first cycle, 78 participants were enrolled on the L&TAD unit from September 2011 to March 2012. Initially I expected the majority would be willing to participate in the study. Many were due to embark on their own teaching development projects from October, so I anticipated that they would be both sympathetic to the aims of the study, and aware of the ethical issues inherent in the gathering and use of their data.

The recruitment of participants, and the gathering of their informed consent, was undertaken by e-mailing all those enrolled on the programme with a link to the full initial dissertation proposal, a summary of the project and a link to an online form (Appendix 7) which required participants to acknowledge that they would have the opportunity to view a draft of the final report, and the right to withdraw their data from the study at any point up to its submission.

39 participants volunteered to provide data for the study. 35 of these offered to respond to the feedback surveys that would be sent out after the units had been completed, while the remaining four said they did not wish to respond to the surveys but that they were happy for me to use their incidental data, such as blog posts and comments they had written, e-mail exchanges and other interactions. 20 said they would be willing to discuss matters further through individual interviews and/or focus groups if necessary.

A point worth noting is that the grade average for this group of 39 volunteers (11.07 for the online activities, on a 15 point scale) was not dissimilar to the overall grade average across the full cohort of 78 (10.23). I mention this because I would have expected that the higher achieving participants would have been more likely to complete a voluntary participation form; in fact the difference in grade average between the sample and the cohort as a whole is, to me, surprisingly small. When one looks at the 24 participants who actually fulfilled their promise to respond to the survey, the grade average (not counting the five who responded anonymously) is somewhat higher still (12.15), but this is likely to be due to the absence of named survey responses from the four volunteers who subsequently withdrew from the unit or did not submit their assignments.

A number of steps were taken to ensure that neither distress nor threats to self-esteem were experienced by the participants. First, the recruitment form (Appendix 7) asked participants to identify the level at which they were willing to participate. This meant that no-one would be asked to contribute more than they were willing to provide. Second, all the questions in the data collection surveys (Appendices 5 and 6) were voluntary (i.e. respondents could complete as much or as little of each survey as they wished), and were focused on participants' experiences of using the specified technologies within the PG Cert curriculum and their own thoughts about and attitudes to learning technologies. Participants were assured that all data would be anonymised prior to presentation in the final report, and given the opportunity to view a draft prior to submission.

4. Results & Discussion

Selection of data for analysis

The primary focus of this chapter is the data arising from the two feedback surveys. Prior to the intervention itself, it was anticipated that a more significant role would be played by the actual content produced through the blogs and videos, and the peer and self assessment process. However, as I will explain here, these data were found to be of secondary importance when it came to interrogating the thesis statement.

Engagement with the blogging tasks and the peer assessment process exceeded my expectations. As shown in Appendix 8, all 67 participants who completed the L&TAD unit in March 2012 engaged with the blogging tasks to a satisfactory extent (one participant failed this element by a marginal degree, having not completed the peer assessment). Interactions on the blogs were extensive and appeared well-considered, with evidence of deepening understanding (Appendix 9) and commitment to collaborative learning (Appendix 10). All 266 incidences of assessment feedback (see Appendix 11 for a selection of anonymised examples) made clear reference to selected criteria. Agreement between peer assessors, despite this process being 'blind', was the norm rather than the exception.

All participants who completed the TDP unit produced and uploaded a video summary to Process Arts (http://process.arts.ac.uk/content/cltad-teaching-development-projects). While many resorted to a simple 'talking head' format, some experimented with more creative solutions to the brief. Participants with existing skills in moving image production tended to create more professional-looking artefacts.

At the start of the unit (as identified during the induction workshop) fewer than 10% of participants had used a blog before, with a marginally higher number having experience of creating and uploading video to the web. Participants' blogs, videos and assessment feedback therefore constituted strong evidence of raised technical competence and confidence across the cohort, both in the use of appropriate software and hardware, and in sharing and discussing their practice and their learning in an online space.

These data did not, however, reveal the reasons why initial posts and comments were delayed, and why some groups worked better online than others. Neither did they reveal why some participants continued to restrict access to their blogs or produce anonymous video artefacts, while some relaxed their privacy settings as the unit progressed, and others had no reservations about openness from the start. Crucially, the data from the blogs, videos and assessment did not reveal what impact these activities had on participants' perceptions of and attitudes to learning technologies generally, and on their future practice as educators. This was the kind of information I needed in order to answer the research question, to gain a deeper understanding of the situation and to identify future action.

In contrast, the survey data exposed what participants found challenging or frustrating, what

was needed to address the challenges, and how the participants had changed as a result of undertaking the activities both in terms of what they had learned, and their views of learning technologies in general. In short, the survey data revealed a lot more about the participants' experience of the new curriculum, and provided a fascinating body of evidence with which to interrogate the thesis statement.

Coding of the data

There were several recurrent themes in the survey responses. Having gained a general sense of these themes, I coded the survey responses to identify where those themes emerged. I initially identified seven themes and subsequently narrowed this down to five themes that are directly related to the thesis statement:

1. Technical competence and confidence
2. Openness and collaboration
3. Writing online
4. Mandating activities through assessment
5. Impact on own attitudes and practice

Data in the first and final themes provide evidence of the outcome of the intervention. They go beyond what can be deduced from reading participants' blog posts and watching their videos, and expose how the participants themselves felt they had changed as a result of doing these activities, in terms of their own skills (1) and the impact on their teaching practice (5). The other three themes explore the benefits and challenges of the specific approaches used in this particular intervention cycle; online writing and discussion; open sharing of practice, collaborative group working, and the mandating of these activities through summative assessment as specified in the thesis statement.

After presenting what I believe to be points worth noting about the dataset in general, I will continue this chapter by discussing the data arising from both surveys according to the five themes listed above.

General points of note about the dataset

Out of the 39 participants who volunteered to take part in the research study, 24 of these responded to the first survey, which focused on the blogging activities in the L&TAD unit. 17 responded to the second survey, which focused on the production of a video for the TDP unit. It was generally evident that his second group was a subset of the 24 who responded to the first survey. It is possible that there were one or two exceptions to this, as a small number chose to respond anonymously.

It is notable that the vast majority of respondents to either survey provided detailed and objective responses to all four questions, with a mean response length of three sentences per question. On receiving responses of such unexpectedly high quality, I considered whether the

depth and number of these responses had been influenced at least in part by the experience participants had gained in online reflective writing throughout the unit. As demonstrated in Appendices 9-11, the development of participants' confidence and competence in online reflective writing during the unit was certainly evident from the blogs themselves.

A second notable characteristic of the dataset as a whole is the balance of views evident in each participant's response. If a participant mentioned collaborative working, for example, a typical response would refer to both the challenges and the benefits of collaborating with peers online, rather than one or the other. Several examples of this are given in the following sections. This is significant as it suggests a breadth of perspective and an ability to think objectively about the learning experience; qualities that are important for all learners to develop, but especially so for those who teach. In fact, what displayed most clearly on coding the responses was that the majority of respondents had listed the same aspects in response to both Q1 (perceived benefits), and Q2a (perceived challenges and frustrations). This suggests that the participants were beginning to recognise the connection between challenge and learning; that learning - the 'benefit' - is often challenging and frustrating, and that our most challenging or frustrating experiences may be the ones we learn the most from. In some cases respondents were explicit in their recognition of this, for example:

> *"I think it's nice that students who don't ordinarily use online resources and are a bit technophobic found it useful - which isn't the same thing as having really liked doing it".*

In others - as can be seen in some of the examples that follow - it is not obvious that the respondent had made this connection yet for themselves. In these cases their responses to the four questions often appeared somewhat contradictory.

Technical competence and confidence

When asked how the blogging and video production activities benefited them, several respondents listed their newly acquired competencies in using a range of tools, which supports the conclusion that these activities contributed directly to the development of skills in this area. The theme of technical competence and confidence also arose frequently in response to Q2a ('challenges'), with the frustration participants felt towards the technology, particularly in gaining access to it, often being clearly articulated:

> *"The technology... is quite alienating. Forgetting how to log in... passwords... etc. ... the whole thing is not very spontaneous"*

> *"It needs one simple interface - not 40 hoops to go through."*

Many of the participants' responses to Q2b provided evidence of self-directed learning, for example the acquisition of a new skill, or the finding of an alternative solution:

> *"...commenting became much easier when I realised I could bookmark pages, other*

blogs etc."

"I had no knowledge of video or editing, but went to a drop-in session...which helped a little."

"video editing is something that I don't know how to do...I decided just to use one take."

"I found a software to record the prezi that also allowed to record sound. This was great..."

"I resolved the problem by trial and error, or talking to other learners."

One respondent offered some specific suggestions for elements that could be incorporated into the curriculum to prepare participants more effectively for the production of video artefacts, which I will present in the following chapter.

In some cases participants reported experiencing a change in their perspective about the challenging or frustrating aspect; one respondent simply wrote: *"I got over it",* while another reported:

"In my own work with students, they feel the activities and community are beneficial - and this can over-ride frustration with the technology. I feel the same... I liked the tasks and the approach... so I can forgive the technology."

Within the data set there is a range of evidence of positive impact in terms of learning benefits recognised and reported by participants. With particular reference to technical competence, one participant stated:

"I learned so much, and it really boosted my confidence...I can now update my own website, know how to blog, and use twitter regularly."

The same participant then went on to write: *"I think that embedding the online learning into the structure of the course was a great way to learn about its benefits and drawbacks...",* and, crucially, concludes: *"...but I did struggle with it at times".* Here, again, we see a single aspect of the tasks perceived as both a benefit and a challenge.

Openness and Collaboration

It became apparent in coding the survey responses that thoughts and feelings about openness were often made explicit through the expression of participants' thoughts and feelings about collaborative working, and vice versa. As with the case of challenge and learning described above, in some cases respondents were explicit about their appreciation of the connection between collaboration and openness, and not in others. Again, in such cases their responses appear somewhat contradictory. For example, one participant described the *"peer dialogue"* that

took place as *"really useful",* but also claims that *"it was more productive to read what other people were doing than to post my comments".* One wonders what is meant here by 'productive', as without the posting of comments there would have *been* no dialogue. Other participants demonstrated this connection implicitly in their responses, with several describing the blog as a means of *"sharing ideas".* One participant wrote:

> *"I got to see where other people were at. This helped me to keep up the pace and to reflect on specific aspects of my teaching."*

The large number of responses similar to this suggests a move towards recognition of open practice within a social network as a motivating factor and/or a mechanism for the broadening of perspective.

It was through this that the juxtaposition of benefits and challenges was most evident in the participants' responses, with some participants communicating their conflicting emotions about openness particularly effectively. For example, one respondent recognised that her *"thoughts and writing needed to be accessible and meaningful to others",* and felt that this helped her *"to really think about what literature and pedagogy was relevant to [her] practice".* However, in response to Q2a, she reports feeling *"self-conscious"* and finding the correspondence with peers *"false".*

The interim report for our own JISC-funded Digital Literacy project (JISC 2012) reported on the affective dimension of what we have been doing with the Postgraduate Certificate curriculum, describing it as dealing with *"teachers' fear of learning in public"* (p12). Having dealt with what felt like a high level of anxiety in the initial stages of the L&TAD unit and the weeks leading up to the submission of the video summary for the TDP unit, at the time we drew the interim report together in February 2012 I saw this as an accurate description of many participants' concerns. A small number of participants had expressed their reluctance in completing the video summary task, one even stating; *"I'd be absolutely horrified if any of my clients found this stuff"*, so I was surprised to find little evidence of these fears on examining the survey responses. It seemed that initial concerns about the open nature of the tasks had become eclipsed by others such as technical issues and time management. The concerns raised in the survey about the video summary, for example, were typically rooted in a desire to produce a professional-looking artefact, and lack of confidence in one's ability to do so:

> *"[I didn't have] the time and skills to develop a professional and interesting resource. I spent a lot of time working on the piece and was disappointed with what I had created."*

> *"The task of filming was actually extremely stressful... we are not trained to do this kind of thing."*

It was clear from the feedback that participants saw the value in the TDP summary task and in this form of open practice, but felt that relevant technical training and support should be

incorporated into the taught curriculum.

A connection that became apparent from coding the survey data was the impact of openness on writing. For example, a small number of participants stated that they had prior experience in writing in an online context, but felt the blogging activities on this course demanded the development of specific competencies, and in some cases a different 'voice'. One respondent referred to *"enforced neutrality",* but also reported:

> *"it was, I think, part of the intent to write and post in an appropriate 'neutral voice', and [I gained] valuable experience in doing so."*

By 'neutral voice' I have assumed this participant meant the framing of one's thoughts in an objective way. Other participant viewpoints on writing online (beyond the specific challenges of writing in the public domain) are discussed further below.

Interestingly, out of all 24 responses to the survey about the blogging activities, despite many identifying the openness of others as being of benefit to their own learning, no-one explicitly described the sharing of their own viewpoints and outputs as being of benefit to their peers. Perhaps this is in part due to participants' modesty; an assumption that their writings are of no use to anyone but themselves. This is significant, as seeing our work as of potential benefit to others is an important aspect of becoming an open practitioner.

Conversely, the responses in this theme to the second survey were much more balanced in this regard, with 13 out of the 17 respondents describing the video summaries as being of benefit to the wider community as well as a useful learning process for themselves. Many also explicitly recognised the personal benefits that arose from sharing their practice:

> *"It has different uses - to help yourself in terms of how you communicate and also to help others engage with your work."*

> *"Making my findings public was something I hadn't considered necessary before. Knowing that you are communicating with a wider audience made me aware of what I wanted to be understood."*

My perception is that the explicit requirement for universal open access to the finished artefacts had brought the wider benefits of these resources firmly into the collective consciousness. The assignment brief clearly stated the rationale for this task as the sharing of practice to benefit the community, while in contrast the rationale presented for the blogging tasks focused on benefits for the individual. Perhaps in subsequent years the benefits to the immediate tutor group and the wider community might also be emphasised in order to encourage an equally open approach to the blogging tasks.

A number of participants communicated a preference for engaging passively with others' blogs,

rather than actively initiating dialogue. Commenting on others' blog posts was an aspect of the activities that many respondents identified as finding either particularly challenging (because starting a dialogue in this way felt unnatural), or frustrating (because of the sporadic nature of others' engagement). This is significant because these are both issues that may be addressed more effectively through course design, for example by providing opportunities to practice asynchronous online communication in the induction stage, and by exploring other strategies to ensure regularity of engagement. Splitting the terminal assessment of participation into five regular assessment points (while making the peer assessment load more onerous) may achieve this. Another approach to stimulating regular interaction within the learning groups would be to build more synchronous online communication opportunities, such as webinars, into the curriculum. These strategies will be explored in the following chapter.

Commenting is a key manifestation of the social constructivist principles underlying the design of the course as a whole and the blogging activities in particular. There are a number of interesting responses from participants about their engagement with this aspect of the activities, and/or their attitudes towards online dialogue as a tool for learning. One participant, who admitted *"I didn't comment as required to"* (having preferred to discuss the tasks face to face) then went on to say:

> *"I'm not sure if my learning was online...the blog was more of a repository than an aspect of online learning."*

Interestingly, the same respondent also noted that it would have been helpful to have used her blog to reflect on offline conversations that had taken place. As identified by Mortensen and Walker (2002), the usefulness of blogs for the documentation of process is one of their key strengths as a tool for learning. If a group is communicating more effectively offline than online, then - as this participant suggested in hindsight - a blog would still be very useful for documenting an individual's reflections on those interactions. This is significant as, although in this case the learning groups themselves decided how they would address and assess the tasks, this particular participant clearly did not consider this as an option until it was too late. Ways of addressing this in future might include making the flexibility of the tasks more explicit in the briefs, or including a broader range of examples of how previous participants completed the tasks.

There are valid arguments in favour of face-to-face communication over online communication - both asynchronous and real-time, and it may be argued that, given the primary learning outcomes of the course, it is more important that participants engage in *any* form of discussion about theory and practice than it is for them to become experienced in using a range of learning technologies. In this particular teaching context there is an argument - as I have posed - for mandating experimentation with online modes of communication, which also make it significantly easier for the tutor to assess how groups are working and what is being learned. However, perhaps there is a point where, regardless of the quality of support given to participants, it becomes counterproductive to force participants to continue to communicate in

ways they have found, or at least believe, to be less effective for them, so the question needs to be asked: to what extent is it helpful to make participants communicate in a particular way when that they feel that it is ineffective for their learning? This is an important question that is closely related to the central problem this work aims to address.

Returning to collaboration as an issue that was raised by many respondents; several participants wrote that they valued the opportunity to develop their own standards of judgement through comparing their ideas and outputs with those of their peers:

> *"Seeing blogs from others on a specific reading was very useful in getting different perspectives on the subject. Also getting their comments to my blogs often inspired me to re-think my view especially when the comments were with critique."*

Nonaka (1991, p.60) argues that this process of *"seeing and fitting your ideas into the pattern of ideas generated in the framework around you",* results a move from an individual understanding to group conceptualisation; a *"new explicit knowledge".*

A high proportion of respondents felt that the blogging activities enabled dialogue and collaboration, and an appreciation of the role these elements play in learning was evident in their responses. However, what is important to determine in the context of this work is whether the participants saw the specific use of *technology* as an enabling factor. In the impact on participants' own practice and attitudes presented and discussed below, it is clear that many participants intend to use similar tools with their own students in the future; however, this may not be because they all believe these tools promote collaboration *per se*; it may also be because of other affordances of Web 2.0, such as visible documentation of the learning process. There were a few more responses further to the example given above that suggest a perception of a direct link between the specific use of online blogs, and the quality of the collaboration that took place:

> *"[the blogs] enabled collaboration and dialogue"*

> *"...quickly I appreciated that online learning allows flexible time management and independent learning, while at the same time this learning is collaborative and supported by 'virtual peers'."*

However, many respondents referred to the *written* nature of the communication rather than the *online* nature of it:

> *"the process of writing the blog posts helped me to reflect more effectively on how the reading related to my practice"*

> *"The written communications... have challenged and supported the development of my academic skills, such as research, analysis, reflection..."*

In addition to the participant quoted on the previous page, who was happy to write her own reflections on her blog but preferred to discuss the readings offline, there were other respondents who also articulated a preference for face-to-face communication, or questioned the balance of face-to-face and online activities on the course. One example follows:

> *"There was not enough possibility to develop really meaningful supportive relationships with those in your learning group using blogging and e-mail... it was so much better after I suggested we all met up face to face for a lunch and we could all really be ourselves!"*

This response reveals a perspective of the online self as different from the 'true' self. The same participant explained in response to another question that she found it difficult to *"really be natural in how [she] spoke".* However, she went on to write:

> *"after a while... it didn't feel quite so strange... the comments flowed more readily when I adopted more of a conversational tone rather than feeling I needed to be too academic in my language."*

What is interesting is that, having acknowledged of the existence of the learning curve required for effective online communication, the absolute statements made about the potential of the medium suggest that the participant does not see herself as *remaining* on that curve. In fact, while many respondents referred to the learning journey they had been on, no-one explicitly referred to its continuation. Perhaps it is often easier to recognise the learning we have moved on from, than the learning we are currently immersed in.

Four respondents highlighted the importance of working with their learning group in a face-to-face setting prior to, or alongside, collaborating online, for example:

> *"I would find an entire course online quite difficult to do (it only worked because I had met the fellow participants in the flesh)."*

> *"I only got around to talking to people on the blogs when I'd bumped into them in college a few times. Because I'd had normal face to face chats about the PG Cert with them, it didn't seem so weird talking to them online."*

This tallies with my own experience of online collaboration; I find that it is possible to build up a strong connection with someone who I have only worked with online; however the sense of connection does appear to build up more rapidly through physical interaction, perhaps because it results in a stronger correlation of sensory experience, and allows a much broader spectrum of non-verbal and paraverbal communication. One way of increasing opportunities for face-to-face interaction between workshop days may be to arrange participants in tutor groups (i.e. sharing a tutor) rather than in tutor-independent learning groups. The latter approach was chosen in the first cycle in order to discourage over-dependence on tutor input. However,

matching tutors with learning groups would have made face-to-face group tutorials a viable alternative to individual tutorials.

Writing

Several participants found concise communication of the pedagogic concepts - and their own ideas - a challenge:

> *“It was sometimes difficult to articulate complex ideas within the relatively small space of a blog post."*

> *“Very few of us managed to stick to the proposed word count for the blog, as the brief often asked us to tackle quite complex issues.”*

However, many respondents recognised the value of trying, for example: *“It would sometimes take a while to word [the blog posts] correctly, but I think it was in the end quite useful to explain in simple terms what I had understood.”*

Some participants commented specifically on the value of writing in an asynchronous online forum, one echoing Mortensen & Walker’s (2002) thoughts on the value of blogging as a tool for self-reflective learning:

> *“Blogging allows [me]...time to analyse, reflect, put my thoughts into sentences and check things through again before posting them.”*

Another recognised that *"students think about their answers when writing blogs as in many forms of asynchronous communication and responses are more considered than real time or in a face to face or video or audio situation."*

Several respondents emphasised the difficulty of finding a ‘voice’ that they felt comfortable with:

> *“I found it very difficult... dealing with the specific pedagogic language as well as working out how I should deal with the arena of the blog. The whole thing felt very unnatural!”*

One participant implied that, while they *“continued to struggle with finding [their] own voice”* on their own blog and felt that their writing was too structured and formal, they felt *“able to reach a less formal voice for follow-up comments.”* This is an interesting contrast to those who reported - as described above - that it was the commenting in particular that felt ‘false’ or ‘unnatural’. Some respondents shared their strategies - both those that they used themselves, and those that they wish they had used in hindsight:

> *“After a while I became more familiar and didn’t feel quite so strange essentially talking to myself!”*

"The comments flowed more easily when I adopted more of a conversational tone rather than feeling I needed to be too academic in my language."

"I ended up leaving some of my posts in draft form, unfinished. I think a real life chat about the content of those articles may have helped me to relate it to something I do in teaching."

The following came from a dyslexic participant:

"I communicate with people better face-to-face where I find issues can be discussed at length and with ease. I believe this means exchanges of information and cognition take place within a much quicker cycle".

In his full response, this participant explained how he struggled with an emphasis on *"typing and word-based communication"* in the blogging activities. His response suggests that it was specifically the *written* nature of the activities that hampered his ability to communicate rather than the fact that they were not face-to-face. This is an important perception to explore. Blogging platforms (ours being no exception) are designed to support a range of media beyond text (e.g. video, audio, image); a capacity that was highlighted to participants in the initial technical induction session. While many (e.g. Weller 2002) argue that the written mode facilitates a more reflective and informed debate, the flexibility of blog content allows participants to use a mode of communication they are perhaps more comfortable with, and to communicate more effectively through using a range of modes in combination. There is great potential for participants to project their professional identity and competence through their blogs; whether they are visual artists or work in a text-focused discipline such as journalism or screenwriting. Across the cohort there was ample evidence of realisation that a blog can be - to a greater or lesser extent - a visual platform, with most participants including at least one sketch, mind-map, image or video on their blogs, and many including a number of these. As one participant wrote: *"I became aware of the range of media which can be integrated into blog posts - photographs, scanned drawings, video etc."*

However, many participants' blogs did consist solely of text, which suggests that they either did not appreciate the potential of the blog as a visual or multi-modal space, or felt they lacked the skills to use it as such. A second self-identifying dyslexic respondent described the blog tasks as *"an additional 500-1000 words that I needed to write"* that added to *"the crushing workload".* He also wrote "*I could say in 30 seconds what it would take me half an hour to write".* On reading this feedback I felt disappointed that I hadn't been aware of the extent to which he was struggling. This particular participant teaches in a digital media-related discipline and, had he seen it as a viable alternative, I suspect he would have found creating and uploading an audio file to the blog a relatively simple exercise.

In addition to placing greater emphasis on this functionality during the technical induction

sessions, it may be worthwhile to reword the briefs themselves to ensure that they don't refer exclusively to writing, and/or to model these alternative communication approaches by providing the briefs themselves in non-written formats such as video, or image plus audio.

Mandating action through assessment

The fourth key theme identified in the survey responses was about the tasks being a mandatory, assessed element of the course. These responses threw the conflicted nature of human character into sharp relief, with many participants describing being forced to post regularly as a challenge, while acknowledging regular posting as being beneficial for their learning. The high frequency of responses along the lines of 'it took a while to see the benefits' could be seen as supporting evidence for the mandatory approach taken. The benefits were not immediately obvious, so an external motivating factor - assessment - was required for participants to continue with the activities and reach a point where these benefits were realised. One participant pointed out that she only found it easy to ask others to comment on her posts because it was mandatory to do so; had this aspect not been assessed, she would have been reluctant to add to others' workload in this way.

As discussed in Chapter 2, the downside of mandating such activities, and one that well-known e-learning professionals (Jenny Mackness and Anne-Marie Cunningham, for example) have cited in personal discussion with me, is that participants' responses may be of a different nature than if they had been entirely voluntary and self-directed. As one participant wrote: *"I just did it, because it had to be done. Occasionally I had no choice but to blog some fairly inane things but I was often falling behind."* An important point to make here is that had the tasks been voluntary, the majority of participants would simply not have attempted them, and therefore not benefited at all. While the previous quote appears fairly damning, the same respondent also writes not only that *"it was a good way of forcing me to do the reading",* but also *"having to read and comment on other group members' blogs gave me a wider understanding as I was able to see it from their perspective."*

The words 'forced' and 'forcing' arose on seven separate occasions in the participants' responses about the blogging activities. What is particularly interesting is that it arose five times in the perceived *benefits* of the activities, and only twice in response to the questions about the *challenges*. This is a key point to note; these participants recognised that they needed to be 'forced' to do things if they were to achieve the learning goals they had set themselves. This is the subtext of Constructive Alignment; it is our role as teachers to design learning experiences that 'trap' learners into achieving the intended learning outcomes. Biggs (2007, p55) himself uses the word 'entrapped', explaining that, where desired outcomes and assessment are not aligned, students can easily 'escape' without learning what is intended to be learned.

A key question here is whether mandating the use of blogs and digital media in particular is valid; is the development of these specific aspects of digital literacy a worthy intended learning outcome on a general learning and teaching course?

In terms of the production of digital media summaries, the answer to this was immediately clear from the survey responses:

> *"Producing a short video is now an essential skill."*
>
> *"...making the video has opened up possibilities for me using it to teach and as a research tool."*
>
> *"It made me explore some new tools that I can use in future projects..."*
>
> *"...video, audio or multimedia presentations can be seen as an additional way to express and communicate thoughts, process and ideas."*

In the feedback on the blogging activities, while many respondents reported being forced to engage with the readings, and each others' perspectives, as a benefit, fewer explicitly referred to the benefits of increased competence and confidence with blogging software. Some did, recognising that the blogging, although quite a specific form of online engagement, incorporated a range of transferable digital literacies:

> *"I have realised how many technical digital skills are embedded [in blogging]... The blog user learns the retrieval of information, to edit, to resize, to convert, to upload and to publish text, image, sound, video and much more..."*

The responses to the final survey question, which aimed to elicit changes in participants' perceptions of learning technologies, were of greater use in determining the impact of the blogging activities on digital literacy and teaching practice. These responses are discussed in the final section:

Impact on own attitudes and practice

Out of the 24 respondents to the first survey, one participant reported that they already used a range of Web 2.0 technologies with students, and retained their positive outlook on the use of technology in education having completed the L&TAD unit. Ten respondents identified clear and specific intentions to use blogs or other online learning tools with their students as a direct result of undertaking the unit, with six of these having already begun to put these plans into practice at the time they responded to the survey (six weeks after completion of the unit). For example:

> *"I have since been offered the opportunity to design...a new [online] graphic design BA... I will apply all of the lessons learned here."*
>
> *"I have also incorporated blogging into my students' activities"*
>
> *"I've since written up a blog for my students to dip into. I will definitely continue to use it as a learning tool."*

Further to these 11 respondents, another seven specifically stated that the experience had caused them feel more positive about online learning, and/or that they were now more open to exploring learning technologies in their own teaching practice, for example:

> *"Having to blog forced me to get to grips with a technology/process that I had been unfamiliar with and as a result made me more open to trying other e-learning options available in my discipline."*

> *"Despite my initial reluctance I see advantages... and certainly will explore some aspects of online learning for my course especially in the context of self-directed study and exchange of views and ideas."*

Four respondents wrote (three of them at length) about their increased awareness of the issues around using these kinds of technology in learning and teaching, and their ongoing uncertainty about whether the benefits could outweigh the challenges. In a particularly reflective response, one participant expressed how, although she had kept a blog of her own for six years, she had found the tasks difficult, and found it strange talking online to colleagues. She compared her experience to her own students' reluctance to post on blogs, despite being "technologically competent". She concludes that this reluctance may be due to blogging being an assessed element rather than something students might do out of choice (as discussed in Chapter 2). Another participant also reflected at length on the factors that can prevent this kind of online group learning from being successful, and suggested several strategies that she might consider using with her own students, including using a group blog instead of individual blogs, or giving groups more autonomy over how they work; for example by setting an initial assignment where groups plan exactly how they will use collaborative technologies to support their projects.

The remaining two respondents clearly stated that, although they had found having structured reading and discussion tasks highly beneficial, the blogging format had not worked for them. While both of their responses to Q4 implied an overall negative perception of online learning, these did not refer to the use of technology itself, but on the challenge, as dyslexics, of communicating in a text-based medium. These responses have been discussed previously in the section on the 'Writing' theme.

Summary of findings

In combination, the blogs, videos, assessment feedback and survey responses constitute strong evidence that, as a direct result of the changes to the core unit curricula, participants gained technical competence in the use of blog software and in digital media production, and confidence in publishing and discussing their ideas online. The data also indicate that embedding these technologies within the curricula was an effective strategy for teaching participants about the benefits and challenges of using such technologies to support learning and teaching.

An overall positive impact was observed on participants' willingness to experiment with appropriate technologies in their own teaching practice, and confidence in their ability to make effective use of such technologies; a mere six weeks after the first unit was completed, 18 out of 24 survey respondents either had specific plans to incorporate learning technologies into their teaching practice, or reported feeling more open to exploring such technologies.

The majority of survey respondents listed at least one aspect of the tasks as both beneficial (Q1) *and* challenging or frustrating (Q2a). This, in addition to direct statements to the effect, suggests that the participants were beginning to recognise the connection between challenge and learning; that learning - the 'benefit' - is often challenging and frustrating, and that our most challenging or frustrating experiences may be the ones we learn the most from. For example, being made to reflect online in a public forum induces self-consciousness. This self-consciousness may feel uncomfortable, but it has a positive impact on the degree of care that goes into selecting and articulating ideas.

5. Conclusions

In this chapter I draw together my conclusions in response to the following thesis statement, and reflect on the effectiveness of the study:

> *When incorporated into programme assessment and supported by appropriate teaching and learning activities, the mandatory use of relevant Web 2.0 applications on professional development programmes can have a significant, positive influence on teachers' willingness to experiment with appropriate technologies in their own teaching practice, and confidence in their ability to make effective use of such technologies.*

My primary concern in the early stages of evaluating the first cycle was that, while I sensed the redesigned curricula had achieved what they were intended to achieve, the process seemed to have been unnecessarily challenging for many participants. Indeed, while the findings summarised at the close of the preceding chapter support the above hypothesis, the analysis of the survey data revealed a number of issues that could be more effectively addressed with future cohorts. These conclusions are summarised below, along with specific actions to be taken in subsequent research cycles, the second of which is already underway with the 2012-13 cohort.

Arguably the most significant action taken after this first cycle was increasing the weighting of the blogging tasks from 10% to 50% of the L&TAD unit grade (the length of the terminal written assignment has been reduced accordingly). Having taken a broad look across the outcomes, conclusions and actions presented in this chapter, I felt that increasing the weighting of the unit grade in the second cycle would support the other amendments and increase the impact of the activity further. Participants from the first cohort were sent a summary of the proposed changes and rationale, and asked for their comments. Seven out of the eight responses received were detailed, specific and constructive in nature (see Appendix 12). They were by no means in complete agreement with the proposed change, but the quality of the feedback allowed me to improve the rationale and demonstrate that I had given due consideration to any concerns raised (see Appendix 13).

Conclusion #1: Initial anxiety about exposing one's thoughts & actions to public critique will be compounded by insufficient technical training and support. The repeated opportunities to develop and practice the necessary technical competencies for blogging on L&TAD meant that this issue was addressed effectively in the first unit, but the video summary required for the TDP unit was more problematic. As discussed in the previous chapter, it seems participants will be more likely to tolerate frustration with the technology provided there are clear benefits to doing the activities and engaging with the community. However, while participants clearly saw the value in the video summary task and in this form of open practice, the overwhelming majority felt that more technical training and support should have been incorporated into the taught curriculum. Teachers are generally accomplished professionals who place great importance on how their own work is presented. If they feel railroaded into publishing a shoddy or slapdash

artefact, it can be painful for all involved. Minimising anxiety is by no means the only reason for optimising training and support. Better quality artefacts are more likely to reach a wider audience and attract feedback from the community.
One participant offered the following suggestion in their survey feedback:

> *"...have a half day session. We could come prepared with an idea and outline and some media and have a session on using equipment and editing. Provide support with technicians and equipment while we work on creating the material. I think this would help with quality control and also increase confidence and skills to continue to develop in the future on our own."*

Action to be taken in second cycle: Two short workshops will be incorporated into the TDP unit to be delivered in April 2013; one on presenting to camera, and one on the technical aspects of producing digital video for the web. These sessions will be of an introductory nature, their aim being to help participants understand what skills are required and identify any further support they will need. Participants will be encouraged to attend the free half-day workshops offered by the e-learning team on basic editing and video production on Mac and PC platforms.

Conclusion #2: Requiring participants to engage in open practice within a social network can be an effective means of teaching the value of the network as a personal motivator and for the broadening of personal perspective. A wider audience may be needed in order for participants to appreciate the wider value of open practice.

Action taken in second cycle: A longer induction session (three hours) allowed more time for privacy settings to be introduced and discussed. During the blog set-up activities it was stipulated that blogs must be open to all to minimise access problems for peers, tutors and external examiners, and to enable management features such as RSS feeds. Anonymity and the use of pseudonyms were promoted as alternatives to closed blogging, and modelled using examples from the 2011-12 cohort, as were appropriate levels of disclosure.

I have also begun to consider whether action should be taken in the next (third) cycle to help L&TAD participants attract a wider audience to their blogs. I have experimented in the second cycle with signposting other educational developers to the best blog posts through my twitter account; a strategy I had seen employed by Dave Cormier on his ed366 module, which resulted in some external readership but no additional input to the blogs. I am keen to build more publicity in to the 2013/14 activities and will ask the current cohort for their perspective on when and how this would be appropriate. I will also be asking Dave Cormier how *his* students felt about receiving comments from external readers.

Conclusion #3: It takes practice to communicate effectively online, just as it does to communicate effectively from a lectern, or with a pen and paper. Using an asynchronous online forum for the first time often feels unnatural and frustrating. It may take a while before participants find a 'voice' they are comfortable with, and most people are accustomed to getting an immediate response when they say something, even if this is merely a nod or a shrug. As

these differences are brought into focus; a learner who would normally be happy dominating the discussion in the classroom may feel ignored and disillusioned online, while one who would otherwise comfortably sit and 'listen' may feel guilty and/or stressed about falling behind.

Action taken in second cycle: In order to manage participants' expectations and lessen the negative impact of feelings of frustration and disorientation, participants were explicitly told during the induction session that communicating online would feel both unnatural and frustrating at times. In giving such an explicit warning my intention was that, when participants subsequently experienced such emotions, their trust in the system would not be affected. At the end of the L&TAD unit in March 2013 I will be seeking specific feedback from this cohort about the degree of frustration and/or disorientation experienced; whether they feel being warned about this beforehand helped them to tolerate it, and whether anything else may have lessened the negative emotions experienced.

In the second cycle, more opportunities were provided for learners to practice asynchronous online communication at the induction stage. During the extended induction workshop participants set up their blogs and e-Portfolios, wrote their first posts and comments, and practiced communicating through Blackboard and the Wimba virtual classroom. Feedback on the new induction sessions was overwhelmingly positive and helpful. Two participants even located and commented on a reflective blog post I wrote about the sessions (see Appendix 14).

Further strategies have also been put in place in the second cycle to ensure more regular engagement throughout the L&TAD unit. The division of the assessment of participation into five regular assessment points was considered but rejected, as I did not want the peer assessment of the reading and discussion tasks to eclipse the tasks themselves. Instead, two alternative strategies have been employed; one being the introduction of monthly webinars to support each task (this is discussed in more detail under conclusion #5). The second is closer monitoring of activity in the first few weeks of the course, using a colour-coding system to identify those at high, medium and lower risk of failure, as well as those who are participating either as expected or at a high level, for example initiating group discussion and actively supporting their peers. An example of a participant at high risk of failure would be one who has not accessed the blogs in the third week of the month. If they subsequently make contact, for example to assure me they are back on track, they may be downgraded to orange, but if they still haven't posted up their response to the task by week four they would return to red. This has made it easier for me to target support where and when it is needed most, to praise and reward those who are initiating the discussions, and to direct those who are unsure of what they should be doing towards examples of good practice.

A final action point that stems from this conclusion is that, where participants' discomfort with discussing their ideas in an online forum is the primary factor in non-participation, they should be encouraged to use the online forum to document and reflect on discussion that has taken place elsewhere (e.g. face-to-face or over the telephone). This can be an effective segway in working towards effective online communication skills. This type of non-participation has not

been apparent in the second cycle, possibly because of the success of the other strategies detailed above, particularly the raising of the weighting of the blogging tasks from 10% to 50% of the L&TAD unit grade.

Conclusion #4: Dyslexic participants may feel disadvantaged by an over-emphasis on text-based online communication.

Action taken in second cycle: In order to increase awareness of the different formats that online communication can take, I have been rewording the L&TAD monthly briefs so that they no longer imply that a written response is expected (see Appendix 1), and include links to exemplar responses from the 2011-12 cohort that demonstrate a range of communication approaches. A further step I would like to take in subsequent cycles would be to model these alternative approaches myself by providing the briefs in non-written formats such as video, or image plus audio. The technical induction sessions, and the related pre-induction task, could also place a greater emphasis on alternative formats. Since looking into communication tools for dyslexic participants I have also been able to recommend Dragon Dictation software, which is available as a free app for iPhone and iPad.

It is also worth mentioning here that concerns raised particularly – but not exclusively - by dyslexic participants implied that the time required to complete the blogging activities was disproportionate to their contribution to the unit grade. In raising the weighting of the tasks to 50%, the time we expect participants to devote to these activities is explicitly recognised and appropriately rewarded.

Conclusion #5: More frequent synchronous contact may help participants build the positive working relationships necessary for effective online collaboration.

While Salmon (2002) and other proponents of computer-mediated communication (CMC) maintain that synchronous and/or face-to-face contact is not necessary to build effective working relationships, this study has shown that our course participants believe regular synchronous contact offers significant benefits.

Action taken in second cycle: The introduction of monthly webinars to support each task on the L&TAD unit has provided additional points of synchronous contact. At the time of writing, eight webinars have taken place (two per month). Participant numbers are low but stable (~12 out of a potential 50), and feedback has been positive. In addition to this, the new cohort has been arranged into tutor groups (i.e. all sharing the same tutor), rather than the tutor-independent learning group system used in 2011-12. Tutors are being encouraged to arrange face-to-face group tutorials as an alternative to individual tutorials, therefore increasing opportunities for face-to-face interaction; a strategy that has so far resulted in six of the eleven groups meeting face-to-face outside the scheduled workshops.
It is intended that the combination of strategies outlined above will allow effective working relationships to be formed more rapidly.

Notes on the effectiveness of the study

While the timescale of this project allowed me to take a snapshot of participants' thoughts and experiences 6-10 weeks after completing the units, a more accurate measurement of impact on practice will be possible over time. My intention is to follow up with the 2011-12 cohort through a third survey in April 2013, asking them to identify changes in their technology use to date, and how they feel these changes are connected to the activities described here.

In hindsight it would have been valuable to take audio recordings of the feedback discussions during the interim peer assessment activity, as these revealed what participants were finding challenging in the earlier stages. Comparing these with the responses from the terminal survey would have revealed how participants' perceptions of the activities changed during the course, perhaps as a direct result of *doing* the activities themselves.

It would also have been useful to seek interviews with those participants who withdrew in the early stages of the course, and are therefore not represented at all in this dataset. I am very interested in the extent to which the online tasks factored in these participants' decision to withdraw.

Finally, more definitive conclusions could have been made about how best to address the challenges experienced by dyslexic students had I also interviewed the two dyslexic respondents to elicit further information from them.

Dissemination of findings

There has been a significant amount of interest in this study, with not only the course participants and my colleagues here in the Centre for Learning & Teaching in Art & Design expressing interest in the findings, but also peers working in both e-learning and academic staff development at other Higher Education institutions across the UK and internationally. Since April 2012 I have presented initial findings at seven different conferences and events - twice as an invited speaker - with my presentation to the Association of Learning Technologists (ALT) in September winning the award for the best short presentation of the conference. As the project will continue to be part of UAL's Developing Digital Literacies project until the close of funding in October 2013, a similar level of evaluation and documentation of process will need to continue at least up to this point. This dissertation represents a snapshot of the action research process and outcomes at the close of its first cycle, and the intention is to continue evaluating, disseminating and innovating in this area for the forseeable future. I will be presenting these findings at the SEDA conference in May 2013, and will also respond to calls for the 2013 ALT, HEA and JISC conferences. I will be exploring publication opportunities once the final document has been submitted and assessed.

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