

Professional Doctorates and Emerging Online Pedagogies

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Abstract

The development and implementation of networked learning within postgraduate programmes is increasing, but there is emerging evidence that the use of networked technology within these programmes is creating specific challenges that reflect the cultural, professional and educational expectations of students as they develop expertise in research, particularly in the case of the professional doctorate. The implications of using networked technology for the development of communities of practice of researchers have not yet been fully identified nor understood nor have its benefits been explored. In this paper, we address these issues by presenting a case study of the development of interactive online research narratives as the basis for the teaching of research methods in professional doctorate programmes.

New technology and networked learning has had to date a surprisingly limited impact on teaching and learning practice within professional doctorate programmes. Learning technology has been identified by a number of researchers as having potential to bring more flexibility into the learning and teaching of research methods. Despite the existence of considerable distance learning provision supporting remote location students, however, there is not much evidence that this is happening. We argue that networked learning has the potential to change the pedagogic practice of professional doctorates, not only through flexible learning in relation to time, place, topics and use of resources, but also for the development of higher order knowledge and metacognition where we can involve students in rich interactions with peers and more experienced researchers and engagement with authentic examples and insights about practice. However, our experience of attempting to embed the use of video research narratives as the basis for developing online communities of practice suggests that the necessary conditions for developing and sustaining online communities of practice are not yet in place.

Keywords

Professional doctorates, online pedagogies, video narratives, metacognition, personalisation, reusability.

Introduction

In this paper, we argue that learning technology can be used in the learning and teaching of professional doctorate programmes as a means of supporting the increasing diversity of learners, to facilitate new forms of research knowledge production within these programmes and for building research capacity that can lead to enhanced communities of practice. Our model of learning design, the core of which is the production of interactive online research narratives in video format that project authenticity in research practice, also contains strategies for professional development that develop shared understandings of effective online pedagogies for reusability and personalisation within this context.

However, our experience of embedding the use of these online research narratives in doctoral programmes suggests that doctoral students are selective in their use of technology and that networked

learning which requires active participation in online communities of practice presents particular challenges for them. It suggests that the necessary conditions for networked learning to be experienced as a community of practice within professional doctoral programmes are not yet in place. We believe that these challenges relate not only to the way in which communities of practice are currently developed with professional doctoral programmes, but also to cultural, professional and educational expectations of doctoral students on these programmes as they develop research expertise. There is evidence that doctoral students are instrumental in their use of technology, for example, making extensive use of electronic resources and the internet for research and using e-mail to communicate with research supervisors. Sunderland (2002), for example, reports on the affective function of e-mail communication within a distance doctoral programme which is so valued that it probably inhibits use of other communication technologies. However, there is also evidence that professional doctoral students find it difficult to consistently participate in an online learning community with peers. Butcher & Sieminski, (2006), Barrett (2003) and Wikeley & Muschamp (2006) all identify the problematic nature of working online with professional doctoral students, who have to operate simultaneously in two communities of practice within their own professional context and within the research community. A number of questions arise from this:

- Is it this complexity of dual identities that is inhibiting participation?
- Despite operating within a community of practice, is becoming an academic researcher an individual rather than a group process?
- Are there technical and access issues about using networked learning technology?
- Is an online community of practice seen as something that can add value to successful professional doctorate programmes?

Pedagogic rationale

Over the last 12-15 years, there has been a rapid growth in the number of graduate students and international growth in the provision of doctoral study. Powell & Green (2007) quote the number of UK universities offering doctoral programmes as in excess of 120. Recent trends with the emergence of professional doctorates in an increasing range of professional fields involving those new to research have led to a concern that current provision does not acknowledge and respond to the diversity of students now undertaking doctoral study. For example, Wellington & Sikes (2006) comment that 'doctorates are now more accurately characterised by diversity than dichotomy' and that doctoral students have a 'wide range of academic, personal and professional needs'. Quoting Humphrey & McCarthy (1999), Wellington & Sikes (2006) conclude that doctoral students no longer form a 'homogeneous population' even if they ever did' and that 'the curriculum, pedagogy and assessment of professional doctorates should evolve and interrelate'.

Others also acknowledge that current provision does not acknowledge diversity in the new modes of production of research knowledge being developed through these programmes and this has led to critical questioning of the purpose of doctoral programmes and how research knowledge and practice in these challenging contexts can be nurtured. Scott et al (2004), for example identify a new typology of knowledge creation - disciplinarity, technical rationality, dispositionality and criticality that take different forms at different times and impact on doctoral study in diverse ways, and note that with a taught element in doctoral programmes becoming the norm, 'research into doctoral pedagogy is becoming a priority'. At the same time, a number of other studies (Birbili, 2002; Deem & Lucas, 2006) question traditional approaches to the teaching of research methods and the distorting effect of the current emphasis on research skills training.

New technology and e-learning has had to date a surprisingly limited impact on teaching and learning practice within professional doctorate programmes. Both Birbili (2002) and Deem & Lucas (2006) identify the potential of technology to bring more flexibility into the learning and teaching of research methods. Currently, however, there is not much evidence that this is happening. Park (2007) speaking at a recent UKCGE (UK Council for Graduate Education) Conference on digital futures sees the role of technology in professional doctorate programmes as providing access to digital resources, for example electronic archives and digital libraries, rather than impacting on learning and teaching. campus . While

electronic resources, such as repositories of electronic dissertations, are important, we argue that learning technology has the potential to change the pedagogic practice of professional doctorates, not only through flexible learning in relation to time, place, topics and use of resources, but also for the development of higher order knowledge and metacognition where we can involve students in rich interactions with peers and more experienced researchers and engagement with authentic examples and insights about practice. Our view of the Scott et al (2004) model of knowledge typology for professional doctorates is that we are aiming at the facilitation of situated knowledge where learners link new knowledge to their prior knowledge and actively construct new internal representations of the ideas being presented (Boekaerts & Simons, 1995). However, this is very challenging to achieve in practice. Networked learning as defined by Banks et al (2003) is a participatory and social process that requires ICT to be designed in ways that promote cooperative and collaborative learning through the development of an online learning community. This requires high degrees of negotiation, communication and reflexivity to occur through the medium of computer mediated communication with members of the online community sharing common goals and producing group products. This is an important requirement for creating the conditions in which online learning in a community of practice can occur. It maybe incompatible with a doctoral programme where goals are individual rather than collaborative, unless the programme has been organised as a fully virtual programme where tutors and students never physically meet.

Developing video research narratives

We have been considering the issue of what forms of learning technology can effectively support the development of online communities of practice of researchers. We have particularly focussed on the role of research narratives presented through video technology. In the V-ResORT Project, we carried out action research into the potential of learning technology to enable doctoral students to achieve higher order learning and to develop their engagement with online communities of practice. This work has been funded by the Higher Education Funding Council for England (HEFCE) through the Fund for the Development of Teaching and Learning (FDTL5) over a three year period from 2004-7 and was led by the University of Nottingham, with the Universities of Sheffield, Bath and Canterbury Christ Church. The V-ResORT (Virtual Resources for Online Research Training) Project has developed innovative online learning materials that provide video narratives of researchers exploring key questions connected with their work. These narratives are displayed using the MS Producer video streaming software as a series of short 3-5 minute clips in higher resolution alongside PowerPoint slides and a transcript that enables the user to easily navigate through a complete narrative and provides them with support for the often complex language used within research methodology. The action research cycle we have implemented within the project has extended the use of these video narratives beyond the initial four partner institutions and across the social sciences, and, as part of the process, case studies to support reuse have been captured.

The research framework

In developing our theoretical framework for the context of use for the video narratives within professional doctoral programmes, we have drawn on the work of Land & Hannafin (2000) who describe principles of grounded design in e-learning, emphasising the need for a clear alignment of a defensible theoretical framework, assumptions and methods, generalisability and an iterative approach to learning design where the theoretical framework can be test and adapted. This has enabled us to experiment and trial production, editing and use of video research narrative. We are drawing on empirical data (Joyes & Banks, 2008) to show how we achieved this, particularly in attempting to embed capabilities within the online materials of reusability and personalisation, the relationship between these and student feedback.

We did this by building a research framework. This has an underpinning key principle to take account of the learner/novice researcher's perspective. We are approaching issues in research methodology from the kinds of questions that novice educational researchers might have and using a visual rather than a textual medium to project authentic insights from current research practice. Rather than beginning with abstract accounts of the different traditions and paradigms and then moving to the more specific research design and conduct issues, we start with the more practical questions, issues and dilemmas faced by researchers in education (and other social science disciplines). Then, through the narratives and supporting commentaries and materials, we are beginning to identify the various disciplinary, theoretical, conceptual and methodological perspectives underpinning and informing research. We are also considering the

relationship between research projects, the kinds of knowledge being created and the purposes for which research is undertaken. This has led to six main questions which have been used to guide the construction of research narratives and case studies:

1. Where did the ideas for research come from?
2. What is the aim and purpose of the research project?
3. Why were the theoretical and methodological approaches chosen?
4. How was your research project designed and conducted?
5. How was the research reported and communicated to a range of audiences?
6. What has happened to the research after it was completed?

Another approach we were attempting to use is that of inquiry-based learning. This term can be used to refer to a spectrum of pedagogical approaches that are based on student-led inquiry or research (eg Brew, 2006, Levy, 2007). While it has always been true that learning at postgraduate and doctoral level involves inquiry-based learning, our work on the V-ResORT project has enabled us to think how technology can be used to place inquiry at the centre of the learning experience and how we can involve research students in rich interactions with peers and more experienced researchers and engagement with authentic examples and insights about practice. Our view of inquiry-based learning has also led us to ideas of advanced knowledge construction and situated knowledge where learners link new knowledge to their prior knowledge and actively construct new internal representations of the ideas being presented. The engagement of doctoral students is facilitated by the role of EdD tutors in enabling opportunities to reflect through high-quality research-led teaching and their engagement with peers is often through mutual support as 'critical friends'. These engagements are often achieved through tacit, rather than explicit processes that has made it challenging to locate the use of learning technology within existing programmes .

Action research cycle

The video narratives of researchers have been made freely available on a website <http://www.v-resort.ac.uk>, where these researchers are exploring key questions connected with their work. Importantly these online learning resources employ compelling cutting-edge technologies that have been made accessible to research students, their lecturers and supervisors. The video narratives include a range of perspectives including those of successful masters and doctorate level students as well as those of successful academics who explore influential nationally-funded research projects. In addition discussant video narratives are included that explore issues raised by the researcher narratives providing a critical overview – a wide range of supporting resources are also included to support learners in making sense of the materials, i.e. key texts, web resources, doctoral theses, project reports etc. Learner pathways provide scaffolded support through the materials and a sophisticated search engine provides easy access to individual video clips. A key feature of the V-ResORT website is the way the materials are integrated into a meaningful learning resource. The complete research narratives are linked to reports, articles, data, thesis chapters and other useful online and text based resources. Below is the opening navigation page of the resource:

A key part of our action research approach has been to identify and work with ‘local’ mentors within the partner institutions who were to use the materials. These were key academics with high status who not only acted as mentors within their institutions but also with the project team to support understanding of the ways to engage with the local culture. The process involved contribution to the creation of one video narrative by each of the four partners. When these were incorporated in the website, local workshops were used to support develop an understanding of effective pedagogy and identify new resources to suit local re-use of the materials across a range of courses. This approach identified the need for materials at Masters level as well as identifying quality existing resources that could be repurposed for the website - these were then incorporated.

Our action research extended use of the video narratives by other universities and then aiming to develop transferability across the social sciences, within Health Studies and within a Graduate School cross university programme. This action research approach allows each new dissemination engagement with the community of users to be problematised so that the local context is accommodated and as a result not only does the community of users grow, but so does the resource.

Implementation and results

We are building up case studies of use within doctoral and masters programmes. One example of use of the resource is within a campus based Masters in Educational Research Methods at the University of Nottingham, UK. As part of the localisation approach specific learning pathways were designed to scaffold the student experience. Fifteen students accessed the website through their one year course and took part in two online group discussion activities that supported the exploration of the researcher narratives in which they were required to identify and share clips they found of most value and discuss how these contributed to their developing understanding of research. Reaction to the researcher narratives

was positive and in some cases very enthusiastic, i.e one student explained how having viewed one clip then found herself 'driven' to explore all twenty of the four minute clips to view the whole research story. She described how she listened to these at home whilst making and eating her evening meal. We have found this reaction quite typical, particularly once a student has found a clip that 'resonates' with their area of research and/or their situation. For example the most popular video narrative for these Master's students was one by an international PhD research student because they felt that her description of the challenges she had encountered was closest to their situation as beginning researchers. This narrative acted as an entry point to the other resources on the website and as a bridge to understanding the more formal and theoretical approaches used within the course texts. As a result of this evaluation and of the needs expressed by lecturers during the project dissemination activities, a discrete set of video narratives covering the Master's degree dissertation journey have been developed for the website.

However, we are still finding it very challenging to fully embed the use of these materials as the basis for developing online learning communities in professional doctoral programmes. Successful online learning communities are dependent on the commitment of individuals to participate and contribute. Although students are willing to engage with the video narratives as individuals, it is much more difficult to achieve their use as a means of collaboration and mutual engagement because doctoral students tend to have individual rather than collective goals and the process of developing research expertise fosters a cooperative rather than a collaborative culture of practice. It will probably require a teaching and learning adaptation of doctoral programmes to fully exploit this approach in which structured learning activities that require an online presence can create the necessary conditions for networked learning, and play a part in assisting doctoral students to reconcile the complexities of operating in multiple communities of practice.

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