



## Designing for authentic relationships, content and assessment in unpredictable learning contexts

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The professional development landscape is being redrawn as e-learning and educational technologies provide opportunities for participants to connect everyday life and formal online learning in new and dynamic ways. These connections call for authentic learning pedagogies which challenge traditional teacher/learner relationships, formal course design and assessment practices. This paper explores some of the difficulties and benefits arising from responsive course design requiring mutual engagement and collaboration between teachers and learners, and where learning and assessment are framed by authentic problems and situated in everyday contexts. We explore how relevant knowledge can be constructed and assessed within an e-learning community; specifically how e-learning can facilitate learner-negotiated pathways linking work/interests and study; and provide a balance between flexibility and structure in course design to enable participants to select relevant activities and resources. This investigation into the practices and strategies of linking work and study has highlighted changing relationships between people, the virtual and the physical, and objects in our educational technology landscape.

Keywords: e-learning, teaching on-line, authentic, professional development

### Introduction

E-learning holds significant potential for higher education, professional development and life-long learning and to cater for those engaging in part-time study. Dyke, Conole, Ravenscroft & de Freitas, (2007, p. 93) invite educators to consider the connections between social learning theory, technologies and authentic learning in real-world contexts, suggesting that e-learning explores “the ways in which these technologies amplify (or curtail) the learning opportunities inherent in the world”. In addition, de Laat, Lally, Simons & Wenger (2006, p. 8) note in their literature review the need for research in network learning “More theory and design-driven research into the development of situated, open and authentic learning spaces, can be undertaken to challenge the traditional boundaries of the education context”.

This study assumes that in order to amplify learning opportunities in the real world, institutions need to conceptualise e-learning pedagogy in terms of social learning opportunities which embrace authentic activities connected to the multiple contexts in which participants work and study. Authentic activity includes the learner genuinely engaging in course activities where the task and the situation are integral to cognition and learning (Brown, Collins & Duguid, 1989). There is a growing expectation that such learning will align work and personal interests, and be situated in real contexts (Ally, 2004; Anderson, 2006; McConnell, 2006).

Social learning theories, collaborative pedagogies and authentic, learner-centred experiences are not new ideals for virtual learning design. Conceptualising e-learning in this way calls for learner-centred design offering porous boundaries between virtual and real communities, and enabling participants to align personal learning goals with the learning outcomes of the course. However, while the intentions are commendable the reality is somewhat more difficult to achieve as the learning experiences are often ill-defined and complex, may involve collaboration, and frequently lead to unpredictable and diverse outcomes (Herrington, Reeves & Oliver, 2008). Other challenges relate to the expertise and confidence required by teachers to manage dynamic relationships and work creatively in a spontaneous environment, and design “collaborative processes that truly integrate and draw upon individual cultures, competencies, and interests of adult learners” (Sorensen, 2005, p. 446).

Educators face multiple challenges in providing flexible learner-negotiated pathways within the constraints of formal credit-bearing courses with set expectations for time-lines, assessment, and

participation, and within university funding and workload constraints (Herrington, Reeves & Oliver, 2008). This paper explores participants' perspectives and preferences relating to choice, flexibility and structure within the context of online graduate and postgraduate courses for teachers.

## Context

There were two catalysts for this study. The first, an invitation to participate in a multi-site project investigating the implementation of the New Zealand e-Learning Guidelines (Massey University, 2005); and the second, the implementation of new qualifications which were designed around a different culture of learning, requiring course participants and to work together in an online community in ways which challenge traditional roles, relationships and expectations. The qualifications embrace a collaborative philosophy enabling participants to negotiate their own learning pathways, share expertise, and interact in meaningful research and work-related activities, as well as designing portfolios demonstrating their knowledge and understanding of e-teaching concepts, knowledge, skills, and strategies. The qualifications were developed on the assumption that when (a) teachers, (b) educational designers, and (c) e-technologists work together on authentic activities, each group develops fresh skills and insights in their specialist areas while learning to collaborate more effectively with those who have other expertises. At the heart of this culture is an explicit expectation that both 'students' and 'teachers' take the role of co-participants in a learning community, and that while the courses have identifiable content and specific learning outcomes, there is considerable freedom to design learning experiences to meet individual needs.

For example, students in these courses created online units of instruction for their own students and evaluated this authentic classroom practice. Another student set up a new Classroom Learning System for her own school while learning about online education including Classroom Learning Systems.

Due to the exploratory nature of this research, a naturalistic case study (Lincoln & Guba, 1985) was used to frame this study. In addition, it became evident to the first author during the focus group meetings which she led with the four teachers that they had begun a style of participatory action research, probably what would be called technical action research. The data collection and analysis blended three sources of data: (1) interviews and surveys to examine students' experiences in terms of what choices they were given in online courses and their preferences for choice and flexibility; (2) a focus group and interviews to elicit how academic staff managed elements of flexibility and choice in their online courses; (3) student survey with 30 responses and interviews with individual students; and (4) the examination of course outlines and online course sites to provide examples and deeper understanding of how these choices were embedded and managed within course activities and assessment. The data analysis consisted of an iterative and inductive process of analysis in order to formulate the qualitative account. Through a careful analysis of the data, trends and discrepancies were found and categories emerged. The data analysis was done manually by reading and underlining, cutting, and pasting. Triangulation was used as a procedure to support validity of the data collected (Stake, 1995). Agreement among data (convergence) as well as inconsistencies and contradictions (divergence) were found as a way to uncover new issues and interpretations.

## Findings from the four e-learning courses

As a result of changes in the four teachers' on-line courses, students' understanding of best practice in e-learning improved. The data indicated that open communication between teachers and students allowed for flexibility, authentic and meaningful learning. Four themes were identified: negotiation of authentic activities, changing relationships between teachers and learners, assessment of relevant knowledge, and flexibility and structure.

In the first theme, negotiating authentic learning activities, the primary focus was on students' views of choice and flexibility and how this enabled them to negotiate meaningful learning within course boundaries. Not surprisingly, students appreciated the opportunity to choose learning and assessment activities which related to their real contexts. They identified authenticity as a key enabler which helped them make relevant decisions about their learning and which motivated them to work independently. Authentic learning activities also promoted reflection and deep connections between virtual and real contexts. As one student articulated "I didn't have to do anything false, it was all related to what I was doing, which was great.... That was what I needed to do and it's also much better for reflection because you are actually doing it and seeing it working or not working, or whatever, so I found that great."

Participant motivation was also a key factor and students with a high sense of personal motivation and commitment appeared in a stronger position to identify their own learning goals and see them through. It

was evident that students were not always clear about their own learning goals at the beginning of the course, or they were openly utilitarian, citing 'course credits' as their intended goal. However, as students engaged in the course and began the process of connecting new ideas and theories to their own situations they were better equipped to recognise personal learning goals, as this student explained: The goals can certainly change as you go through the course, which I think shows the flexibility and that is great. Sometimes, if you are learning something new, it's [sic] the old case of you don't know what you don't know and when you meet something new, you need to reset your goals. Another student, who admitted her initial goal was just to pass the course, explained that mid-semester she became aware of her need to develop online facilitation skills in order to implement a work-based activity, and this became a specific learning goal. Others suggested that the ability to identify learning goals was related to learning maturity, and that while participants might struggle to do this in an early course, this was something which developed with experience as they completed several courses.

The second theme identified was the changing relationships between teachers and learners. Within the new qualifications teaching and learning were envisaged as reciprocal activities requiring openness, communication, inquiry, and reflection by all participants. Learning in such a fluid environment required everyone to participate, and for traditional teaching and learning roles to coalesce into a model based on mutual engagement and collaboration. This different conceptualisation of formal learning was both beneficial and problematic for students and staff.

Students found it difficult to initiate activities within the community and assume leadership roles in group/community tasks. They also found it difficult to keep track of the collaborative activities, knowledge and outcomes generated within the community, and to manage time constraints within groups when some people needed more time than others to explore issues, experiment with technology, or solve problems. Staff also found themselves in unfamiliar territory because of the dynamic nature of the course environment. They needed to find their way in a collaborative teaching situation with shared responsibilities when they were used to adopting a course-leader role and taking full responsibility for content and learning activities. Staff also found that offering and encouraging student choice made it difficult to meet the needs of everyone as expectations and experiences differed widely; it was difficult to manage the various activities so that a sense of momentum was maintained while simultaneously ensuring people had adequate time to engage at a deep level; and it was time consuming keeping track of different projects, activities and conversations.

Positive aspects related to the wealth of shared knowledge and expertise within the course community, and the willingness of participants to support others. For example, one group member created a wiki site to facilitate the discussion of an article and this served a dual purpose of introducing others in the group to this technology and supporting them to use the features of the application. In this particular example, one of the teachers also interacted with this group and gained confidence in using wiki for collaborative tasks, thus engaging as a learner rather than expert and extending their own repertoire.

The third theme was about assessment of relevant knowledge. Assessment in the new qualifications used a portfolio approach where students demonstrated how they had met the learning outcomes by linking specific evidence from their practice and engagement and reflecting on their own learning. This type of open assessment contrasted sharply with the standard assessment process and presented a major challenge to students. Rather than set activities leading students through to predetermined assignments, students were required to reflect on their personal learning goals in relation to the learning outcomes before they could begin to consider assessment. Some students were uncomfortable with such freedom and required considerable support and guidance to (a) understand the process and (b) create their portfolios of learning. Students needed considerable one-to-one support and mentoring to adjust to the flexible assessment process. Assessment was also more complex for teachers who had to make judgements about whether the students had provided sufficient quality evidence to demonstrate they had met the learning outcomes.

The final theme was the need for both flexibility and for structure. While students appreciated elements of flexibility and choice in relation to resources, activities, groups and assessment, both students and teachers strongly endorsed the need for structure. Several students apologised for the apparent contradictions in their responses, stating that they highly valued both flexibility and structure, and that they preferred courses which provided clear frameworks and guidelines within which to work. One teacher stated that the structure of her course provided the "*liberating constraints*". Liberating constraints were mentioned by participants included (1) logical online site design; (2) timelines with milestones and due dates clearly identified; (3) clear guidelines about expectations for engagement and participation; and (4) clear instructions regarding assessment. While these features represent good practice in any course, they are particularly necessary to support students in courses with flexible modules, authentic assessment

options, and independent work. Students appreciated points of connection and direction, as well as independence and options.

## Future development and conclusion

Our e-learning qualifications have continued to develop and all these courses continue to be offered. For example, in one course taught by the second and third authors currently offered in the University of Canterbury, seven teachers are undertaking action research projects on e-learning in their own schools. It is also interesting to note that many of the themes identified above continue to impact the course design in the University of Canterbury as well as the schools. In addition New Zealand, in common with other parts of the world, has introduced increased e-learning including an action plan for e-learning in primary and secondary education (Ministry of Education, 2008).

In our opinion best practice in e-learning for teachers must involve all participants at a social level. Socially, students need to establish themselves in the online environment, develop relationships with others in the space (both students and facilitators), and engage in learning conversations and activities. Establishing from the outset that teaching and learning are reciprocal activities requiring openness, communication, inquiry, and reflection by all participants may reduce the expectation for high levels of direction or instruction. Learning in such a fluid environment requires self-motivation, an understanding of how the course content might be enacted within work or everyday contexts, and a willingness to work within broadly defined parameters to construct understanding rather than an expectation of attending class as a passive recipient of information. Teaching in a dynamic learning environment also demands new competencies including the ability to work spontaneously across emerging projects and interests, mentoring students to develop their own solutions and accepting that there may be multiple outcomes to the same problem. Perhaps most importantly, teaching in this environment requires a personal disposition which enjoys reciprocity in teaching and learning, and which is energised by unpredictability.

In summary, the professional development landscape is being shaped by new technologies and a growing expectation that part-time study will align with and complement work practices and community life. The challenge for educators is to strike the right balance between structure and flexibility in combining e-learning technologies, social learning pedagogies, and situated activities to enable meaningful learning experiences for students.

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