Peer-reviewed paper

Web-enhanced Distance Teaching in Early Childhood Teacher Education: Lecturers’ Experiences and Implications for Professional Development

Karin du Plessis
Australian National University

New Zealand’s tertiary education sector is making increasing use of e-learning (Suddaby & Milne, 2008). In addition, changes in the New Zealand early childhood context have spawned the use of online technologies in delivering teacher education programs. One early childhood teacher provider, New Zealand Tertiary College, is piloting a web-enhanced distance learning project. The aim of the pilot project is to initiate teaching in a web-enhanced mode at the College, with a specific focus on developing technologies appropriate for early childhood teacher education. Following an introduction to the web-enhanced distance learning pilot project, this article considers the web-enhanced teaching experiences of three lecturers who participated in the project. Recommendations for improving the web-enhanced project are noted, and finally, the importance of a dedicated professional development program in readying lecturers to teach in a web-enhanced learning environment, are discussed.

The key to success in an online course for early childhood professionals is to create a sense of community that encourages active participation, meaningful contributions, and an open exchange of ideas and resources.

(Donohue, 2003, p. 81)

Introduction

The early childhood sector, as well as early childhood teacher education, in New Zealand has undergone significant changes over the last few years. One driving factor has been the New Zealand Government’s requirement that all early childhood teachers hold a minimum a Diploma of Teaching by 2012 (Ministry of Education, 2002). This has meant that not only has there been a rapid growth in teacher education providers (from six colleges being the sole providers of teacher education in the 1990’s, to twenty providers today), but teacher education providers are also beginning to offer alternative modes of course delivery, in what is still a field dominated by classroom-based courses (Kane, 2005). Early childhood teacher education providers, such as New Zealand Tertiary College, have now begun to implement new ways to deliver their programs, for example, courses via online technologies. This article explores the findings of the College’s piloting of online technologies to support student teachers. In particular the article considers the support required for the College’s academic staff.

---

Learning and teaching in an online environment

The Education Commission of the United States noted several years ago (2002) that distance learning is a mode of educational delivery that could increase educational opportunities for early childhood student teachers. Technological advances in the last decade (Nicholls & McLachlan, 2006) have meant that distance learning, in the traditional paper-and-pencil based mode, can now be enhanced by web technologies. Few researchers have made comparisons between online and traditional classrooms (Sunal, Sunal, Odell, & Sundberg, 2003), however, in studies where comparisons were made few differences emerged (e.g., Davies & Mendenhall, 1998). One of the main advantages of web-enhanced learning is the flexibility and convenience it offers students in that they can participate in their studies at a time and location suitable to them. In this regard Hosie, Schibeci and Backhouse (2005) note that “as the fastest growing form of information exchange within our society, the Internet allows multimedia technologies to be available to anyone – virtually anywhere” (p. 540). Traditional distance learning does present a unique set of challenges, for example, isolation from lecturers (Nichols & McLachlan, 2006). However, many courses presented in an online learning environment are different from traditional distance learning modes in that students can participate in, and develop, a learning community, for example, via online discussion forums (Fox & Donohue, 2006). Similar to face-to-face relationships in classroom-based courses, these online learning communities will only be established if the lecturers facilitate the development of these relationships (Levine, 2005), and if students are willing to engage in interaction, including peer learning experiences.

Whilst many lecturers new to the online teaching arena are excited about the idea of teaching online, others might be hesitant about the impact online teaching will have on their current roles and workloads, as well as whether they possess the necessary skills (technical and pedagogical) to teach in an online environment.

Price and Oliver (2007) identify a paucity of research around the gap between the hype of implementing online learning, and the impact of these technology-focused practices on lecturers (e.g., the changing conception of what a lecturer is; the emergence of new roles; and the manner in which technology-based practices disrupt current or more traditional practices). In conjunction with this, a recent study focusing on early childhood teacher educators at Queensland University of Technology in Australia (Davis, Lennox, Walker, & Walsh, 2007) identifies that a large proportion of lecturers “do not believe that online teaching and learning can ever be a full replacement for effective face-to-face teaching and learning in pre-service teacher education” (p. 8). Coupled, these ideas indicate that some lecturers are confused about their changing roles, and many are not convinced that teaching in an online environment is preferable to teaching face-to-face. In addition, many lecturers new to the idea of teaching in an online environment are grappling with technical issues and computer skills. Shea (2007) in a study of 386 faculty teaching in 36 American Colleges found that computer skill level was potentially a demotivating factor for new staff teaching online: “It seems likely that the struggle associated with mastering the technical aspects of online teaching may be a sufficient challenge without adding new subject matter into the mix” (p. 83).

Not only could teaching new course material be a potential challenge, but pedagogies which best support the development of online learning communities also need to be considered. For the early childhood context the
pedagogical principles underlying the development of online learning communities could become particularly pertinent when considering how we teach the “art and science of caregiving and relational care” (Donohue, 2002, p. 21). This implies that content and instructional design need to create a learning environment which appropriately conveys the course intent and meets course outcomes. Underscoring this, Richards (2006) notes that:

Any educator wanting to effectively integrate and use ICT’s for teaching and learning purposes needs to understand and apply basic pedagogical as well as technological principles of interaction design in order to develop ICT-supported learning environments relevant to their particular educational purposes and contexts (p. 239).

New Zealand Tertiary College and the Web-Enhanced Distance Learning (WEDL) pilot project

New Zealand Tertiary College has been a national provider dedicated to the provision of early childhood teacher education in New Zealand for over 25 years. Having previously provided a range of programs via various modes of delivery (e.g., face-to-face and distance learning), 2007 saw the piloting of a new mode of delivering teacher education, which incorporates, and is based on, the New Zealand e-learning guidelines. The e-learning guidelines have been developed for delivery in the tertiary sector, and provides a research-based framework with the goals of: “informing tertiary staff of good pedagogical practice, aiding the design of effective e-learning, supporting quality e-learning activity, engaging staff in critically reflecting on their e-learning practice and enhancing the experience of students engaging in e-learning” (Suddaby & Milne, 2008, p. 115).

The Web-Enhanced Distance Learning (WEDL) pilot project involved 11 students studying towards their Bachelor of Teaching (Early Childhood Education) and three lecturers, who were all new to teaching in a web-enhanced learning environment. For students the WEDL pilot project involved a preparatory Learning Online course, which introduced students to the ecelearn² platform, as well as four Bachelor of Teaching courses over a period of six months.³

Participants

As part of the WEDL project, three lecturers participated in an initial questionnaire, as well as two focus group interviews (approximately 1½ hours each) prior to and at completion of the program. Focus group interviews and the open-ended questions used in the interviews were deemed suitable by the research team to obtain a detailed understanding of the lecturers’ experiences as a group (Cozby, 2001).

All three lecturers had indicated an interest in participating in the WEDL pilot project. One of these lecturers held a teaching degree, while the two other lecturers had completed postgraduate qualifications. Two lecturers had five years of teaching experience at a tertiary level, with one lecturer having nine years of teaching experience. All lecturers had previous experience in participating in online learning as part of their own study.

---

² ecelearn can be accessed at: www.ecelearn.com

³ Student perceptions of this web-enhanced pilot program are discussed elsewhere, see for instance Walker & Du Plessis, 2007; Du Plessis, Walker, & Naughton, 2008.
Data gathering and analysis

Lecturers were surveyed in a qualitative manner using open-ended questions. Questions asked in the questionnaire and focus group interviews were developed by the research team to capture lecturers’ experiences in relation to various aspects of the pilot project, including their expectations regarding online teaching, student-lecturer interactions, preparation for online teaching and their professional development experiences with regard to the project.

Thematic analysis was deemed an appropriate methodology to tease out core themes underlying participants’ experiences of the web-enhanced pilot project. Previously acknowledged (Braun & Clarke, 2006) as an “accessible and theoretically flexible approach to qualitative data” (p. 77) thematic analysis is viewed as a process that is utilised to encode qualitative data. More specifically, a theme is construed as a pattern found in the qualitative information that describes and organises the information, although it can also interpret parts of the data under investigation (Boyatzis, 1998).

The coding process followed a three-step progression by members of the research team, and involved (a) developing concepts and categories to organise data into a framework of ideas, (b) comparing data instances, cases and categories for similarities and differences, and (c) unifying key themes (Boyatzis, 1998). A summary of the findings are presented below.

Findings

In the initial phase of the research all three lecturers indicated that they were excited about the idea of facilitating a web-enhanced program, and their expectations regarding ongoing involvement with the web-enhanced program were positive. All lecturers also indicated that they believed that building relationships with students was essential to a successful web-enhanced program, for example one lecturer commented on the importance of “building trust and positive regard and helping students to trust that they can get through this.” Another lecturer commented that “the teaching-learner relationship” was a key to success in the program.

Alongside this, it was also clear that lecturers wanted to establish a different type of relationship with their students where the lecturer does not present as the ‘sage on the stage’, but rather as a facilitator of a collaborative learning process. This can be illustrated by one lecturer’s comment: “I would like to build a relationship where students and lecturers are more on the same power platform, not presenting as the experts with students.”

At the completion of the pilot project lecturers were asked to reflect upon their role in facilitating a web-enhanced program. They noted that their main tasks included engagement with reflective tasks completed by the students, answering questions, sparking further interest, marking, and promoting discussions. Lecturers did note that participating in the discussion forum was something new, and brought a different aspect to the traditional facilitation of [paper-and-pencil based] distance learning courses. Lecturers felt that the online technologies available in the web-enhanced mode led to the possibility that the course learning outcomes could be met in different ways. They emphasised that they would like to see a greater focus on using discussion forums, offering classes/lectures online, and making available a wider range of online activities to encourage learning and engagement with course content. The general consensus was that they believed there was the
potential for web-enhanced learning platform to be more collaborative: “We didn’t really have a clear understanding of how the discussion boards can enhance the teaching and learning. If the discussions had been more in-depth maybe if there had been some understanding that students knew this was an important part [to their learning]. It was not articulated to the students how helpful it would be.”

In their opinion, several factors impacted on the potential for collaboration, namely:

- **Limited time frame** – lecturers felt that the short time frame of the course duration could have impacted on the formation of collaborative relationships.

- **Limited content knowledge** – due to the new courses being used as the pilot program lecturers felt that having a greater content knowledge of the courses would have enhanced collaboration: “most of my energies went into understanding the new material and getting my head around it… understanding the content better would have helped with discussion topics.”

- **Workload** – Lecturers commented that there was an additional workload to this mode: “It did take a lot more time because it was new material to me.” Lecturers also noted that constrictions of time due to workload issues impacted on the time available for them to engage in students’ reflective tasks – “I couldn’t read all the reflections to encourage a greater level of involvement.”

- **Unrealistic student expectations** – lecturers noted that students seemed to develop an expectation that if they could access web-enhanced learning 24 hours a day, 7 days a week, that a lecturer would also be available for them during these times. One lecturer commented: “I might give clear office hours in the future.” The lecturers felt that students developed unrealistic timeframes for responses to emails, resulting in some students perceiving that their lecturers were not supporting or collaborating in their learning.

- **Lecturers as sole source of information** – lecturers also reported that normal supports available to students at the College were used less by the students in the web-enhanced mode: “there seemed to be the understanding that we as [web-enhanced program] lecturers were the only people students could go to for support.” This resulted in lecturers being the sole source of information and support, as students did not seem to utilise the duty lecturer, pastoral support, library support or academic support elsewhere in the College if their appointed lecturer was unavailable. This resulted in collaboration between lecturer and student, but one not necessarily based on engagement with the course content.

Lecturers were asked to comment on the professional development that they were given prior to commencing the web-enhanced program. The professional development consisted of the lecturers being shown the functionality of the system and then being given access to the system to explore it themselves. In addition, lecturers were given time to peruse study materials, and made aware of various avenues for technical support. At completion of the study all three lecturers indicated that to some extent (whether it be with regards to netiquette, setting professional boundaries,
time management, or utilising the online discussion forums) they did not feel sufficiently prepared to facilitate the web-enhanced program.

Lecturers were asked to offer suggestions as to how the professional development could be made more effective. Lecturers deemed one-on-one professional development in an ‘on-demand’ fashion to be ideal, and one lecturer commented that “it would need to be more hands-on for myself so that it develops my skills as a lecturer.” Another lecturer commented that professional development needs to occur “when we realise there is something that we need help with, so that someone can help us.” This was deemed particularly pertinent around the facilitation of discussion forums, where all the lecturers indicated that they did not have the necessary skills to successfully facilitate discussion forums. In this regard, practicing in the facilitation of discussion forums was indicated as a potentially useful preparatory activity.

**Discussion**

Although lecturers indicated awareness that their relationships with students were a key aspect to the success of the web-enhanced program, it became evident that lack of communication in the discussion forums also hampered the successful formation of an online learning community. The importance of establishing learning communities for early childhood student teachers is noted in the literature (e.g., Donohue, 2003), and Davis et al. (2007) comment that “interactivity and dialogue are essential components to promote active construction of meaning” (p. 3). However, it should be noted that online learning communities can be difficult to foster. For example, Davis et al. (2007) cite group sizes and social presence as factors influencing online learning community development. The development of the online learning community in this instance also appears to be hampered by the short time frame of interaction between students and lecturers (approximately six months). Lecturers also noted that they wanted to develop relationships that were more collaborative, and in a sense using a word such as ‘facilitation’ is a potentially telling indicator of a shift in their own pedagogical approaches to a more learner-centred approach based on social-constructivism. Although lecturers’ own pedagogical approaches were not assessed, this would influence their approach to teaching in an online learning environment. According to Nkonge and Gueldenzoph (2006) lecturers’ beliefs about technology could also potentially influence their decisions about online teaching practices. Their research indicates that “instructors’ fundamental beliefs about pedagogy do not change much, if at all, and changes in practice may occur more often than changes in beliefs” (p. 47). This is in line with what Jaffee (2003) comments on with regards to online practice necessitating change, as the nature of online teaching does not always mimic traditional teaching methods.

Together these points reiterate a number of aspects which could be addressed in professional development as lecturers prepare to teach in online environments: Becoming aware of one’s own pedagogical beliefs, and how these might be challenged in an online learning environment; becoming aware of one’s own beliefs about technology, and the manner in which this fits/clashes with one’s pedagogical beliefs; and a greater focus on preparation for successful facilitation of online discussion forums with an eye to developing online learning communities. McDonald and Reushle (2002) echo this by commenting that “it is evident from experience and a growing body of literature that well-designed support and resources are required in
order to guide teachers [lecturers] through technological and pedagogical change” (p. 8).

In order to successfully prepare lecturers to facilitate online learning, lecturers need to become familiar with the technology utilised in the platforms (as well as its capabilities) (Anderson, 2005), consider their own teaching approaches and keep up-to-date with research-based information relating to teaching in an online environment. Some of this could occur by making available appropriate, effective and dedicated professional development sessions for online teaching. This is in line with what Shea (2007) notes:

That less experienced online teachers may be more dissuaded by their unfamiliarity with effective online pedagogy, absence of face-to-face interaction, lack of opportunity to observe online teaching before trying it, lack of opportunity to experiment with online technology before adopting it, and inadequate time to learn about online teaching, suggests that future growth and quality is contingent on the availability of training (p. 84).

**Conclusion**

The best may slip, and the most cautious fall;
He's more than mortal that ne'er err'd at all.

*The Poetical Works of John Pomfret* - John Pomfret, 1779

The New Zealand Tertiary College (WEDL) pilot project is currently in its second phase of implementation. Findings from the first pilot project, continual reflection on the New Zealand e-learning guidelines, and an ongoing desire to improve practice, have driven these developments. Most of the recommendations from the first study have now been implemented. For example, a number of technical aspects, such as posting online biographies, are set to enhance participation in discussion forums by aiding familiarity between students and lecturers. With regards to professional development a number of improvements have been implemented. These included a greater allowance for time in becoming familiar with course content (which also includes more comprehensive mentoring, as well as practice marking of papers). New lecturers have also been given a number of research-based readings to assist in their understanding of online teaching practices. These have served as a basis for fruitful informal discussions between the new online lecturers. Lecturers have also systematically worked through a study guide aimed at preparing them for teaching in the online environment. This covers various aspects related to teaching online, including netiquette, time management strategies, and setting appropriate boundaries with students (e.g., availability). In addition to the usual familiarisation with the platform and orientation to all technical aspects, lecturers have also undergone a dedicated professional development session where they practice their skills in facilitating online discussion forums. The success of the current professional development program will be determined at completion of the WEDL pilot project (towards the end of 2008), after which further refinements will be considered.
References


