Ready, Steady, Study: Implications of Online Learning for Early Childhood Teacher Education

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INTRODUCTION

As the early childhood sector moves toward the New Zealand Government's 2012 requirement (*Pathways to the Future: Nga Huarahi Arataki*) for all early childhood teachers to hold a minimum of a Diploma in Teaching (Ministry of Education, 2002), the character of early childhood teacher education is changing also. There has been a rapid growth in New Zealand from six colleges of education being the sole providers of teacher education in the 1990s to twenty providers today (Kane, 2005). Kane also notes that in New Zealand the majority of early childhood courses are classroom-based, and they are taught by private training establishments and institutes of technology/polytechnics. To meet the needs of the sector (i.e., to hold at minimum a diploma qualification), early childhood teacher education providers are investing in new ways of delivering their programmes. At the forefront of alternative methods of course delivery are courses delivered via online technologies. In a sector known for its innovation and rapid growth (Kane, 2005), early childhood teacher education has shown that learning in an online environment has become an increasingly popular alternative to traditional face-to-face modes of study.

This review considers online learning and preparation for learning in an online environment in the early childhood field. Although the literature reviewed employs a range of terms to describe delivery options facilitated via various modern technologies, there is commonality in the intent to deliver effective student learning opportunities through an online mode. In this review, the term *online learning* will be used as an umbrella term for such learning.

ONLINE VS. TRADITIONAL MODES OF LEARNING

Distance learning has been identified as an educational mode of delivery that can be used to increase the availability of professional qualifications for early childhood student-teachers (Education Commission of the States, 2002). For some New Zealand early childhood education providers, distance learning has been a prelude to online learning. Technological advances in the last decade (Nichols & McLachlan, 2006) have enabled these education providers to introduce online learning as an alternative to traditional ways of learning. Distance learning methods, including online learning, have proved their worth. For example, in 2005 more than 85 percent of students chose distance learning as their mode of

study at New Zealand Tertiary College (Donohue, Fox, & Torrence, 2007).

A recent literature review indicates, "Few researchers have directly compared an online course with its traditional course counterpart" (Sunal, Sunal, Odell, & Sundberg, 2003, p. 3). However, in some studies where comparisons were made (Davies & Mendenhall, 1998; Jewett, 1998; Wegner, Holloway, & Kroder, 1997), no differences were found in the grades of students who attended traditional classroom-based courses and the grades of students who utilised online learning components.

Several researchers have studied learning styles in relation to online courses; they have found that, similar to classroom-based education, a range of learning styles (auditory, visual, kinesthetic) can be accommodated by online education (El Mansour & Mupinga, 2007; Shih, Ingebritsen, Pleasants, Flickinger, & Brown, 1998). However, like any mode of study, distance education presents a unique set of challenges, such as isolation from lecturers (Nichols & McLachlan, 2006). While online learning is not for everyone, Young (2002) found that the traditional teaching/learning approach also is not ideal for all students. It therefore seems that the academic community should be focused on how to combine the best learning opportunities for all students, rather than arguing the strengths of classroom-based education versus online education.

E-LEARNING GUIDELINES

The increase in the number of online programmes for early childhood teacher education (e.g., Nichols & McLachlan, 2006) has prompted providers to ask "'how best to teach online' not 'if' they should provide an online option" (Fox & Donohue, 2006, p. 31). To aid developers of online learning courses and to ensure the quality of online courses, New Zealand e-learning guidelines have been developed. These guidelines also provide a basis for evaluating e-learning materials and resources (Milne & Suddaby, 2005). Through the use of this evaluative tool, there is the potential for online learning to be seen as a viable alternative to classroom-based learning. The following quotation highlights the potential impact of guideline use on providing quality early childhood teacher education courses:

> The emerging online learning environment offers early childhood educators new ways to teach and learn. I'm convinced by my experiences that we can advance the quality and effectiveness of teaching and learning online by connecting eLearning standards and guidelines to learning standards, leading to better teachers and improved outcomes for children in our care and their families—the goals of effective early childhood teacher education and professional development in any mode of delivery. (Donohue, Fox, & Torrence, 2007, p. 37)

ADVANTAGES OF ONLINE LEARNING FOR EARLY CHILDHOOD TEACHER EDUCATION IN NEW ZEALAND

One the major advantages of online learning to the New Zealand early childhood sector is the flexibility it offers student teachers. Student teachers are not restricted to attending an institution located in the main population areas. Distance learning modes (such as online learning) can remove the geographical barriers that may prevent students from

accessing early childhood teacher education. Hosie, Schibeci, and Backhaus (2005) note, "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). Students can complete their studies at a time and location that is suitable to them. Not being bound by class schedules has been noted as one of the advantages of online learning in recent research (El Mansour & Mupinga, 2007; Hosie, Schibeci, & Backhaus, 2005).

Walker and du Plessis (2007) found this benefit also applied to early childhood student teachers. They reported on a pilot project conducted at New Zealand Tertiary College which focussed on Web-enhanced technologies that provided online study guides and asynchronous discussion forums. Student teachers in the pilot project indicated that one of the advantages of Web-enhanced learning was that they could participate in a course at any time and place. Asynchronous online courses, or those that do not require students to all be present or connected at the same time, are seen as highly relevant for early childhood teacher education. The benefit of asynchronous learning to the early childhood sector in New Zealand is that student teachers can work in the centres gaining valuable teaching experience, while studying. In a study of 96 graduate-level students, Perez Cereijo (2006) found that full-time workers prefer asynchronous online courses because they have multiple time-sensitive issues that affect their schedules, including work hours, family commitments, and distance from tertiary institutions. Again, this preference was found in the Walker and du Plessis study (2007), indicating

that student teachers prefer the flexibility that Web-enhanced learning allows.

Field-based early childhood education is identified as an area for future research in Kane's review (2005) of initial teacher education in New Zealand. Nichols and McLachlan (2006) also identify the danger of apprentice-like practicums as opposed to student teachers implementing knowledge gained in their coursework. Although there may be some drawbacks to online learning, its greater flexibility allows students to potentially practice and grow their teaching skills in real-life situations.

ONLINE LEARNING AS A MEANS OF TRAINING EARLY CHILDHOOD TEACHERS

The absence of a visible facilitator and classmates has led some students to believe that online learning is an isolating experience. Donohue (as cited in Walker & du Plessis, 2007, p. 15) notes that students who prefer face-to-face teaching see distance learning as "high tech/no touch, and are sceptical about its value as an educational and social experience." Owing to the type of work, it is generally assumed that early childhood teachers will seek to study in a social environment where social interaction and relationship-building can occur. However, the assumption that effective learning occurs because of the face-to-face relationships in classroom-based courses is disputed. Levine (2005) suggests that face-to-face teaching will not create better learning experiences "unless they—*the lecturers*—work to facilitate relationships" (p. 19). Creating effective relationships as a prelude to learning thus may be based upon the instructor's skill level and the student's willingness to engage in the interaction, rather than on participants' physical proximity. When reflecting on a

comparison of teaching online and teaching in a classroom, Donohue notes, "I found that I know my online students better, even though I have never met them in person, than the students in my classes, because I have so many more one-to-one interactions" (Donohue, Fox, & LaBonte, 2004, p. 79). More comparative studies of students' experiences of online and classroom-based learning will add depth to our understanding of the social aspects of learning online.

Social learning is not simply the domain of the teacher-to-learner relationship. An important aspect of social learning occurs between students themselves, often termed learner-learner or peer-learning experiences. Online courses are different from other modes of distance learning, in that students can develop and participate in a community of learners who exchange information and ideas to enhance their learning and professional development (Fox & Donohue, 2006). Therefore, it can be argued that online learning does have the ability to facilitate social learning experiences for student teachers, albeit in a different way to that of classroom-based courses. The recent increase in the number of early childhood student teachers choosing to study via distance learning modes (Donohue, Fox, & Torrence, 2007) indicates that the idea of social isolation does not seem to be a deciding factor for early childhood student teachers in New Zealand. Since there are obvious social learning benefits to online learning (in contrast with print-based distance learning), and given that online learning affords the same type of flexibility for students as print-based distance learning, this might imply that online learning has or will become the mode of choice for future students.

INFORMATION TECHNOLOGY SKILLS AND ORIENTATION

Given the extent of resources available to early childhood teachers on the Web, teachers need to be able to access and interact with Web-based information. As in other professions, skills in techno-logically aided learning and information and communications technology (ICT) are essential to early childhood education student-teachers joining the workforce (Kaynama & Keesling, 2000). Hunt (cited in Lai, 2001) conducted a survey of 80 students and found, "Many beginning teachers had very few personal or pedagogical skills in the area of ICT and many student teachers had little experience of using IT in their field practice" (p. 12). Often described as "technology phobia," this reluctance exhibited in some teachers may be more of a barrier in a student teacher choosing to undertake courses online than any other factor previously discussed. This perceived barrier to early childhood student teachers enrolling in online studies raises awareness that students will need sufficient preparation to ready them for online study.

It has been identified that students need technical competence to succeed in an online learning environment (El Mansour & Mupinga, 2007). According to Wu, Tsay, Chen, and Wu (2006), the Technology Acceptance Model is useful when attempting to explain computer behaviour. Wu et al. (2006) note that this model builds on Ajzen and Fishbein's (1997) theory of reasoned action, which implies that "beliefs could influence attitudes, which lead to intentions to use and finally to actual usage behaviors" (p. 288). Walker and du Plessis (2007) found that, prior to commencing their Web-enhanced studies, students reported they were willing to learn new tech-

nology skills. On completion of the online orientation course, students recognised an increase in their technical skills. In addition, students continued to recognise the importance of the orientation course in preparing them for Web-enhanced learning at the completion of their studies (Walker & du Plessis, 2007). Student teachers require effective orientation to the online environment not only to enhance the quality of their learning experience, but also to support their technology skills.

Online learning courses have the ability to improve student teachers' ICT skills while they are engaged in initial teacher training. Often this is a by-product of online learning of which the students themselves may not be aware. McVay Lynch (2001) found that students who had completed an online orientation course not only had a positive attitude, but demonstrated a significant increase (89 percent) in their technology skills. Students' technical skills also have been linked to the manner in which they engage with technology and the online learning environment. Previous research on preparatory courses that were centred around enhancing technology skills found that students accessed the course material with less anxiety and frustration, leading to overall course satisfaction (Pillay, Irving, & Tones, 2007; Erlich, Erlich-Philip, & Gal-Ezer, 2005). Drennan, Kennedy, and Pisarki (2005) conducted a study of 256 first-year Australian marketing students who had completed a flexible learning course with Web-based components. The researchers found that positive perceptions of technology and a self-directed learning mode in particular contributed to student satisfaction with the course. In addition, they found that a positive attitude toward innovation also meant that students viewed the new

technology more positively. Considering the Technology Acceptance Model (Wu et al., 2006), students' positive attitudes toward technology also led to improved use of the new technology presented in the Web-enhanced mode during their studies.

McVay Lynch (2001) found that students who did not receive effective orientation in the skills necessary to participate in online learning showed high course drop-out rates, more problems with technology, and social isolation. These results have the flow-on effect of student failure to enrol for further online learning experiences. According to Donohue, Fox, and Torrence (2007), students "are very worried about their lack of technology experience and skills, and they fear that learning online will be a lonely, isolated experience" (p. 35). It is the authors' experience that students who are successfully orientated to online learning do not share these concerns. The New Zealand e-learning guidelines also recognise the importance of effective orientation for students, and signify that giving students guidance on skills necessary for successful engagement in the e-learning environment is an indicator of best practice in online learning (Milne & Suddaby, 2005). Effective student orientation allows online course designers to follow best practice, which encourages students toward self-direction while recognising differences in confidence and motivation.

CONCLUSION
In keeping with the New Zealand Government's mandated requirements that all early childhood teachers hold teaching qualifications by 2012, there is a greater need for providing educational opportunities to student teachers. Many of these student teachers are choosing

to study via distance learning, and more recently opportunities to study via online learning have become available. These online learning courses potentially allow the same type of flexibility as traditional distance learning modes; however, instead of studying in isolation, students can benefit from social learning opportunities (e.g., discussion forums) in a community of learners. These social experiences enhance student learning opportunities, and greater social inter-action lies closer to the professional environment in the early childhood sector, which includes sharing ideas with work colleagues.

The New Zealand tertiary education sector has developed e-learning guide-lines for the development of online courses, and all tertiary providers are encouraged to utilize these guidelines to develop the most effective courses. One of the guidelines includes the importance of effective orientation to online learning. Effective orientation of students to learn in an online environment means they can engage more successfully with the learning content. Orientation has the added benefit of increasing students' technology skills. Positive technology experiences in turn make it more likely that students will be willing to engage in future technology-rich experiences in an increasingly technology-oriented society.

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