

Using an Adapted Continuous Practice Improvement Model to Support the Professional Development of Teachers in a Collaborative Online Environment

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INTRODUCTION

This article considers the on-going problem of teacher professional development especially in the area of using ICT for teaching as highlighted by the evidence of a slow pace of implementation of learning technologies, the generational gaps in teachers' involvement with ICT and change-resistant school cultures (Abuhmaid, 2011, Bound, 2011, Curwood, 2011). It is becoming more widely accepted that many of the educational problems that appear to be intractable are actually embedded in teacher culture and therefore it is teachers' readiness (Hassan, 2010) which needs to be the focus of attention if positive technological change is to be achieved in educational institutions. By using the Continuous Practice Improvement (CPI) model (Schifter, 2008), teachers are immersed in a new, technology-enhanced learning environment (TELE) where they gain first-hand experience of how to teach through the medium of ICT. Through observing and co-teaching in this TELE, the teachers' preconceived notions of ICT usage in the classroom are challenged and it awakens their interest and motivation to adopt new ICT-based pedagogical approaches into their own teaching in light of the affordances the technology offers to learners.

The context of the study reported in this article focuses on one specific aspect of technology enhanced learning, namely the incorporation of a virtual learning environment (VLE) into classroom practice using a blended learning approach – whereby the teacher mixes face-to-face classroom teaching with opportunities for online collaboration by the pupils. By utilising a similar approach of blended learning for the delivery of the CPI programme, the teachers become 'apprentices' receiving both the knowledge of how to

construct effective online courses in the VLE and also exemplification of the support mechanisms needed to guide, moderate and facilitate online learners in this environment. As the article reveals, teachers' self-efficacy and motivation to use new technologies are enhanced through this immersive experience, leading to a change in their mindset resulting in the dissemination of ideas within the teachers' network of school-based colleagues. To the delight of the school principals, the cascading of this new knowledge to other interested teachers occurs naturally in the form of impromptu professional development sessions at a whole school level, providing the context necessary for a shift in the school culture towards ICT and technology-enhanced learning through VLEs.

The Challenges of Educational Technology

Rapid developments in the power and availability of handheld technology have increased the gap between personal and educational uses of technology. Students are considered to 'power down' (Prensky, 2001) when they enter educational establishments and both teachers and lecturers are criticised for their lack of insight into the use of modern and innovative technologies to enhance the student learning experience. However the challenges faced by modern teachers are often a culmination of a variety of restrictions such as the limitations being imposed on these tutors from an organisational perspective due to concerns over data security and unauthorised use of licensed software, a lack of technical expertise in the use of novel devices making it difficult for some teachers to visualise the application of the new technology to the classroom

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context, and finally the lack of pedagogical exemplars to illustrate effective use of new technologies for student learning (Puzziferro & Shelton 2009; Cowan, Neil & Winter, 2011).

As educators, it is often assumed that teachers will intuitively know how to use new technologies to support learning and therefore little attention is given to earmarking funding for teacher professional development needs. However in reality, Palloff and Pratt (2001) report this is not the case as teachers have diverse needs in terms of professional development and therefore a 'one-size-fits-all' model of professional development is not possible (Connolly, Jones & Jones, 2010). The majority of teachers who undergo online professional development act on their new-found knowledge in their classroom teaching immediately after training (Woolfolk Hoy & Burke-Spero, 2005; Skaalvik & Skaalvik, 2010). The underlying reason for the slow pace of change in classrooms even in the most technologically enhanced school contexts (Cuban, 2001), may therefore be related more to pedagogical inhibitions through lack of exposure to 'good practice' in technology-enhanced learning environments rather than a negativity towards the technology itself. For these reasons, it is timely to consider the needs of teachers and to establish an effective model of teacher professional development in educational technology which can be used to withstand the pace of technological growth in the future. It can therefore be concluded that, despite the commonly held belief that most teachers are negatively disposed towards technology resulting in the perceived lack of progress in embedding technology in many classroom practices, research findings indicate that a willingness and desire to embed technology into teaching combined with exemplification of effective pedagogical practices, will be sufficient to invoke change for many teachers.

BACKGROUND

Based on Lave and Wenger's (1991) work in situated learning and Guskey's recommendation in 2000 that professional development needs to be intentional, on-going and systemic, the value of communities of teachers working together within and across educational institutions was deemed an appropriate direction for new models of teacher professional development. However communities alone would not lead to pro-

fessional development, there needed to be a rationale and function to ensure the community moved beyond friendship and supported a climate of change (Fullan, 2001). The work of Schifter (2008) on Continuous Practice Improvement (CPI) operationalized the key objectives of both Guskey and Lave and Wenger by recognising the role of an Expert Mentor (the Resident Teacher, RT) who could scaffold and facilitate the professional development of Visiting Teachers (VTs) through immersion in teaching experiences in his/her own school context. Using a combination of observation, shadowing, co-teaching and reflection over a period of five weeks, these Visiting Teachers would experience at firsthand, the infusion of technology into classroom pedagogy.

A key component of the CPI model was the VTs' immersion experience and the time released from normal classroom teaching after the CPI program to plan and implement the instructional changes in the VT's own classroom practice under the guidance of the RT online. Due to financial constraints within the schools, an adapted CPI model was implemented in the UK context with the five weeks of intensive training advocated in the original CPI model being replaced by five individual days of training spread across the full academic year interspersed with online support from the RT. A seamless transition from novice to expert, facilitated via the use of pre-planned, scaffolded learning experiences meeting the needs of the VTs 'just in time', was planned in a joint collaboration between the RT and the VTs in the group. By co-constructing the schedule, the VTs' readiness to internalise these new experiences was ensured so they could make the connections between their current pedagogical practices and the more novel and engaging use of technology-enhanced learning.

UTILISING AN ADAPTED VERSION OF THE CPI PROGRAMME

Issues with Existing Professional Development

Despite the calls from governments and local districts over the past decade to use technology to enhance teaching and student learning (NCLB, 2001; DfES, 2005) professional development for teachers in the

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