

# E-Portfolios in Teacher Education

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## INTRODUCTION

The growing belief among all involved in education—that children and adults should be lifelong learners—has spawned the emergence of interest in the continuous, progressive, and transportable documentation of learning, or e-portfolios. At the same time, technology is opening up new possibilities regarding when and how learning can take place. Consequently, teacher education should aim to increase ICT literacy, but should also focus on how it can be used to improve pupil learning, to create more effective teaching resources and how to generate new learning models (Barron, 1998; Wishart & Blease, 1999).

This paper will provide an overview of the pilot study where the University of Ulster worked in collaboration with Microsoft Ireland to implement the Microsoft Innovative Teachers Programme (INTP) to, first, develop curricular resources, and second, to extend the use of ICT as a tool for reflective practices by developing e-portfolios. The e-portfolios were developed by students in initial teacher education (ITE) (one year Post Graduate Certificate in Education—PGCE), and their e-portfolio was used to embed and develop ICT in their first (induction) year of teaching. This paper looks at the experiences of these former students, in particular, how they articulated their professional competence, how they identified appropriate professional development pathways, and how, when qualified, they continued to develop those pathways. The support roles of their induction tutors are also examined to determine how the e-portfolio was used to help identify specific needs and how those tutors provided accurate and appropriate support pathways. Furthermore, this paper discusses how the project findings could influence e-portfolio policy initiatives in Northern Ireland and how the relationships between students, teachers, and tutors

on courses of initial teacher education (ITE) need to be better managed and integrated if they are to realise the full potential offered by a new climate of technology-enhanced professional development.

## BACKGROUND TO THE STUDY

Of late, the prevailing view is that ICT can enhance the quality of learning by changing the way it happens and by opening up new opportunities that can lead to profound implications for pedagogy thereby becoming catalyst for change. This vision was encapsulated in the Northern Ireland Education Technology (ET) Strategy (DENI, 1998). These policy documents laid the foundation for the use of ICT in education throughout the UK. The ET strategy gave rise to the Classroom 2000 (C2K) programme which had the aim to provide mandatory training for all Northern Ireland's 20,700 full-time teachers and to place a comprehensive infrastructure of computing into all of its 1,200 schools, including high-speed connectivity throughout the education system and a comprehensive managed learning environment (DENI, 1998). All teachers (and hence students) are now required to have personal competence (skill in the use of ICT), subject competence (expertise to integrate ICT in their main subject or age-range), and teaching competence (competence in planning, preparing, teaching, assessing, and evaluating lessons using ICT). Similarly, ICT is an integral part of the curriculum and most school inspections include how ICT is managed and integrated into pupil learning. As most of the ET-based developments focused on schools, Higher Education Institution (HEI) tutors were left to anticipate what good ICT-based classroom practice should look like and had to construct strategies for supporting their student teachers. Thus, they tried to

predict the issues that students would face during their placement in schools and advised them about working within diverse ICT teaching cultures at hugely differing stages of development, while at the same time, promoting models of ICT-based teaching, learning, and professional development. The result was that while many students had enriching experiences, others received limited exposure to ICT-based teaching, or they experienced methods of varying effectiveness, or taught using unreliable infrastructures (Clarke, 2002). For the latter, reflection on the effective use of ICT in learning was limited to a theoretical possibility and establishing sound ICT-based teaching and learning practices was beset by access, attitudinal, and pedagogical problems (McNair & Galanouli, 2002). More recently, “empowering schools” has updated the ET strategy by incorporating e-learning into a more strategic set of school-based and professional development milestones, not least among them, the expectation that all pupils *and* teachers should take lifelong view of learning and support their career planning and development through personal e-portfolios (Anderson & Stewart, 2005).

As e-portfolios are a new phenomenon, the opportunities afforded by their technical functionality are likely to refocus old debates on how the “e” changes the portfolio landscape. The traditional debate on the use of portfolios has been on educational purposes, the embedding of reflection, and the demonstration of evidence, or any combination of these three interests. Any new thinking on e-portfolios should augment the best of traditional practice with what new technology has to offer. However, consensus on the purpose, application, and hence definition of traditional portfolios has been elusive (Barton & Collins, 1993; Campbell, Cignetti, Melenzyer, Nettles, & Wyman, 2002; Convery, 1998; Ellsworth, 2002; Harrington, 1992; Hatton & Smith, 1995; Korthagen & Wubbels, 1995; Mokhtari, Yellin, Bull, & Montgomery, 1996; Richardson, 1998). Indeed, where their use is established (Littlejohn, 2002; Rees, 2002), there is a danger that embedded practices may inhibit new opportunities.

## Microsoft Innovative Teachers at the University of Ulster

The Microsoft Innovative Teachers Programme is part of the wider Partners in Learning Programme began in 2003 by Microsoft Corporation. The goal of the Partners in Learning (PiL) ([www.microsoft.com/Education/](http://www.microsoft.com/Education/)

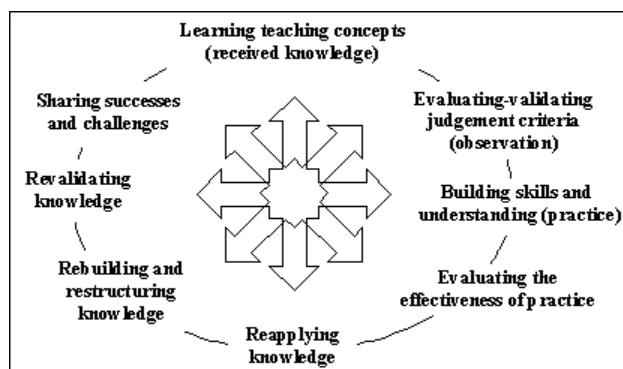
PartnersinLearning.aspx) initiative is to help schools to increase student learning through teacher development and leadership. Through Partners in Learning, Microsoft is partnering with experts in education and curriculum development to deliver high-quality learning and development experiences for educators, resources to support success in the classroom, and opportunities to network with colleagues.

At the same time, the University of Ulster was embarking on an online strategy in attempt to increase the richness of the learning experience for their students and to further integrate technology as an educational tool for all students. The online reflective activity is represented in a model that shows both the sequential stages of development and how each stage brings new levels of understanding to the others (Figure 1).

Initially, therefore, lectures provide the foundation for school placement. Then during the placement, the students’ classroom observations are analysed and discussed online. Once they start teaching, all students have to evaluate and report via the VLE on their own experiences in a range of areas including classroom management, questioning, planning and organisation, teaching pupils with special needs, assessment, teaching and learning, and so on. Students are encouraged to discuss all aspects of their teaching with the teachers whose lessons they have been teaching. Once online (at least twice every week for the duration of the eight-week placement), the students discuss prearranged issues with their tutor and with others.

For this pilot study, 36 of the 125 students on a PGCE Post-primary course (10 Art and Design, 15 Geography, and 11 Technology and Design students)

*Figure 1. Online learning model at the University of Ulster*



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