USING THE INTERNET TO PROVIDE AUTHENTIC PROFESSIONAL DEVELOPMENT FOR BEGINNING TEACHERS

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Abstract

How can the Internet be used to provide authentic professional development for newly appointed teachers? This paper reports on work-in-progress of an industry partnership research study between Edith Cowan University education staff and students, and the Education Department of Western Australia teachers and curriculum advisers. The study involves developing a web site to assist novice teachers solve realistic school-based problems and will involve approximately 120 K-7 and middle school teachers from ECU who have undertaken training in the use of the website. Teachers appointed in 2003 from the university cohort will be invited to use the website in their first and second years of teaching. Online interviews and surveys will be conducted with teachers from the cohort who have gained employment. Case studies will be undertaken with teachers selected on the basis of geographical location and year level taught. Guidelines will be produced to support the design and production of Internet-based professional development.

Keywords

Professional development, online learning, beginning teachers, authentic learning

Introduction

The professional development of beginning teachers is recognised as a necessary process in the long-term development of 'full-fledged professionals' (Schoenfeld, 2002, p.22). In particular, the first two years of teaching have long been recognised as critical stages for survival and adjustment to the profession (Katz, 1972; Burden, 1982). Without support, these teachers can find it difficult to adapt to change, and can readily abandon approaches to teaching and learning emphasised in current curriculum initiatives (Schoenfeld, 2002). New teachers are often burdened with the difficult classes that experienced teachers avoid (Moskowitz & Stephens, 1997), little or no mentoring is provided (Moir & Gless, 2001), and many suffer from a lack of administrative and classroom support (Westing & Whitten, 1996). There appears to be a lack of access to professional development, and in particular, reduced contact and support from fellow professionals (Collins, 1999; Foster & Harvey, 1998), a situation compounded by the day-to-day demands of a profession that can be highly stressful—up to one third of teachers regard teaching as a highly stressful occupation (c.f. Chan, 1998). These problems, while general and widespread, are felt most acutely in rural and regional areas of Australia.

This project proposes that many of the inadequacies of current approaches to professional induction can be improved by targeted use of the Internet to support neophyte teachers in their first years of teaching. A dedicated website incorporating communication elements, recent information, contact information, and relevant and recent professional resources may also go some way to reducing professional fallout in

regional and remote areas of Australia. By providing both reflective and just-in-time support, and supplying important communication links to mentors and to other neophytes, the Internet may be able to provide a valuable role in the retention of these professionals.

Authentic professional development using digital technologies

An authentic approach requires students to actively engage in solving real-world problems that reflect the context and complexity of the practical situations in which the need for learning was created (Brown, Collins & Duguid, 1989). Multimedia-based programs that have used this approach have been developed for the professional development of preservice teachers. CD-ROM programs such as *Learning About Teaching* (Mousley, Sullivan & Mousley, 1996), and *Investigating Teaching and Assessment Strategies in Mathematics Classrooms* (Herrington, Sparrow, Herrington & Oliver, 1997a, b). These resources have resulted in improved learning outcomes of teachers during their professional practice in schools (Herrington, Herrington, Sparrow, & Oliver, 1998). Although the Internet potentially can offer rich and flexible approaches to professional development (Oelrich, 2001), the educational designs commonly adopted favour traditional, transmissive approaches to teaching and learning. Website designers often revert to models of instructional design that are becoming obsolete, and do not capitalise on technological advances inherent in the medium (Mioduser, Nachmias, Lahav & Oren, 2000).

A powerful, novel approach to Internet design is one that draws upon a wealth of research in situated learning, case study and problem-based learning to provide a model of *authentic* learning. Recent theory and research suggests that characteristics of authentic learning environments include: *authentic contexts* that reflect the way the knowledge will be used in real-life (Brown, Collins, & Duguid, 1989); *authentic activities* which are ill-defined and allow sustained thinking (Brown et al., 1989; Winn, 1993); *access to expert performances* and the modelling of processes (Lave & Wenger, 1991); *multiple roles and perspectives* (Spiro, Feltovich, Jacobson, & Coulson, 1991); *collaborative construction of knowledge* (Collins, Brown, & Newman, 1989); *opportunities for metacognition* to plan, monitor and evaluate learning (Boud, Keogh, & Walker, 1985; Bransford, Brown & Cocking, 2000); *opportunities for articulation* to enable tacit knowledge to be made explicit (Lave & Wenger, 1991; Vygotsky, 1978); *coaching and scaffolding* by experts at critical times (Greenfield, 1984) and *authentic assessment* of learning (Herrington & Herrington, 1998; Reeves & Okey, 1996).Using the characteristics of authentic learning described above, a new site will be designed specifically for beginning teachers. It will comprise a comprehensive, *professional development context* in which teachers can engage in authentic problem solving in relation to their own needs and concerns as beginning teachers. The site will include:

- a *discussion board*, where authentic problems and issues of relevance can be discussed with peers from their university cohort. It is intended that the discussion will also involve lecturers from ECU, school practice supervising teachers and preservice teachers in their final year of study;
- *frequently encountered problems* that teachers typically encounter in their first two years of teaching, where problems and issues (archived from the discussion board) are discussed together with suggested solutions and advice;
- *Listservs* relevant to general and specific areas of teaching;
- *exemplary teaching* videos, where teachers can view a variety of teaching and assessment strategies demonstrated by expert teachers in classrooms;
- *links to lesson plan* resources, where teachers can download and reflect upon lessons in different learning areas;
- *links to professional development modules (generic, self-directed)* in areas such as numeracy, literacy, integrating technology in the classroom;
- *links* to a variety of websites and resources including those provided by Education Departments and Professional Associations;
- a *virtual bookshelf* where online articles and papers can be accessed on a range of classroom issues such as curriculum frameworks, class management, literacy and numeracy issues, assessment, parent interaction and professional isolation;
- an *online journal* where users can bookmark and annotate content as well as keep a record of useful information or insights which they have gained in their use of the system;

- a *publication interface* to allow users to share insights and content from their journal for use by other system users. This will be implemented via a simplified web page creation tool and essentially create an optional, 'personal homepage' for all users;
- comprehensive *feedback, tracking and profiling* implemented within the system to enable statistical analysis of the use of the system with regard to most commonly used facilities and areas, as well as the ability for users to submit comments and ideas about the system. In this way the system can evolve and grow in conjunction with the users and possibly more completely serve their needs.

Within such a professional development site, a learning community will be maintained where it will be possible for an isolated teacher to update skills, download lesson plans, access a range of quality web-based resources, and share problems and multiple solutions with former classmates, lecturers and supervisory teachers. In the proposed research, the website will be used as a focus for the identification of the problems facing new teachers, and it will be investigated for its potential to provide meaningful support for teachers in their first two years of teaching. An industry partner, the Education Department of Western Australia (EDWA) will be involved in the following ways:

- Teachers who have supervised the beginning teachers on their preservice school practice will be part of the project, providing online assistance on general and specific issues such as classroom management and curriculum planning.
- Level 3 Classroom teachers employed by EDWA are exemplary teachers charged with, and competent in, providing ongoing professional development for their colleagues. These teachers will provide lesson plan resources and other expertise that will be utilised on the website.
- Senior Curriculum Consultants from each of the eight learning areas employed by EDWA will provide quality assurance advice of curriculum resources utilised on the site.
- Video resources that have been developed by the National Schools Network and funded by EDWA will be made freely available for the website.
- EDWA will fund teacher release to enable the beginning teachers to participate in the project and to be interviewed.

Conclusion

Both the Australian Commonwealth and State governments provide an array of incentives to attract teachers to enter the profession, particularly to rural and remote regions of Australia. While there are initiatives in place to *attract* professionals not enough research attention is being given to determining effective ways to *retain* them. The Australian College of Education survey of Australian teachers has reported that large numbers of teachers entering the profession do not expect to stay there (Richardson, 2002) and that one of the major reasons for resignations is job dissatisfaction resulting from a lack of administrative support (Ingersoll, 2001). The innovative use of online technologies to deliver support, authentic professional development and curriculum resources could help to remove the sense of professional isolation felt so acutely by novice teachers. Arguably, it could also have a positive effect on beginning teachers' morale, reduce attrition, and decrease government costs in the provision of educational services (Herrington & Herrington, 2001). Professional development and support that is valued by beginning teachers may help to reduce attrition rates thus minimising the national cost of teacher training and maximising social outcomes in rural and regional areas.

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