Chapter XX

Professional Development for the Online Teacher: An Authentic Approach

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Abstract

While telecommunications and telematics have been available in schools and universities for decades, the speed of adoption of the Internet into general use has been unprecedented. This has placed a great deal of pressure on university teachers to re-evaluate their roles in the light of new teaching and learning opportunities. The Internet has opened up possibilities beyond the simple acquisition of information, and has created teaching and learning challenges that many teachers feel ill-equipped to meet. This chapter examines the impact of the Internet on the teacher’s role and explores the types of skills and strategies that teachers will need to be effective and efficient in online learning environments. The professional development needs for the new role of online teacher will be discussed within the context of a Graduate Certificate in Online Teaching and Learning designed to encapsulate authentic approaches to learning.
Introduction

The widespread adoption of the Internet in education has created new challenges for all stakeholders in the teaching and learning process, but particular challenges exist for the university teacher. In this climate of Web proliferation, professional development becomes critical, where universities must make significant investments, not only in technology infrastructure, but also in staff development (Bates, 2000).

Professional development for university teachers needs to address a widespread inertia often caused by a top-down approach to the adoption of technologies in universities (McNaught & Kennedy, 2000). Those academics who feel comfortable working with technology in online environments are rare, and there is generally little transference of expertise to their colleagues (Bennett, Priest & Macpherson, 1999), a situation compounded by an increasing number of sessional and part-time teachers (Van Dusen, 1997). Other reasons for the resistance to technology amongst university staff include: lack of experience or confidence in using technology, caution about methodologies teachers regard as unproven, and a belief that computer-based options threaten the human interaction teachers value in face-to-face teaching (Cremer, 2001; Sparrow, Herrington & Herrington, 2000). In particular, the speed of adoption of the Internet in higher education has caught many teachers unaware and unprepared to face the challenges required to succeed.

The Internet and the Changing Role of the University Teacher

The use of the Internet has risen three times more quickly than any comparable development (Economist, 1999) such as radio, the personal computer and television. All these technologies have affected our daily lives and access to information, news, and entertainment. But not all technologies have successfully made the transition from general use to educational use. In 1992, Strommen and Lincoln (1992) claimed that: “The technological changes that have swept through society at large have left the educational system largely unchanged” (paragraph 3), and prior to the widespread adoption of the Internet, this comment was an accurate reflection of the general lack of use of technologies in schools and universities at that time. For example, Cuban (2001) has pointed out that many technologies adopted with enthusiasm for classroom use have not survived there, such as radio in the 1920s, film projectors in the 1930s, and instructional television in the 1950s.
However, while those technologies have impacted only minimally on education practice, the Internet is positioned to dramatically affect the way we teach and learn. The process has been predicted by Pittinsky (2002) to be “a fundamentally transformed way of delivering and supporting the instructional process in higher education” (p. 2). Already, it has provided educators with a powerful tool to create effective and immersive learning environments (Jonassen & Reeves, 1996), and to provide efficient and collaborative means of communication for students with their teachers, and with each other (Jonassen, 1995). Despite controversial claims that the Internet could be “the ultimate isolating technology that further reduces our participation in communities” (Nie & Erbring, 2000, p. 19), it is well placed to provide opportunities for cooperation and communication that never existed with previous technologies.

While the promise of the Internet is exciting to educators, as with any new innovation, it requires a substantial rethinking of traditional approaches and roles. The rapid uptake of the technology has meant that school and university administrators are no longer content to allow the early adopters set the pace of change within their institutions. Online delivery has captured the imaginations of these administrators, who see the potential of computer-based and resource-based learning to provide low-cost teaching in times of cutbacks and reduced budgets and as a means to provide less teacher-dependent modes of learning. With much at stake in terms of strategic positioning in the marketplace, the online delivery of units and courses has now become central to universities’ strategic planning. Arguably, the momentum to use the Internet has become a top-down, policy-driven push, rather than a bottom-up diffusion of good educational innovation and practice.

These trends have understandably left many university teachers uncertain and confused about their own role as teachers in an online learning environment. Many feel threatened by the move to change the traditional modes of delivery where, at present, they have a crucial and well-established role. They are threatened by the prospect of increased student numbers and workloads, while they themselves are coming to terms with the new role required of them as they teach online. What is the role of the university teacher in the age of online learning?

**New Roles for the Teacher**

Research derived from new learning theory is clearly showing that online delivery is no more a threat to teachers than teaching machines were in 1968, exemplified by Keller in his ironically titled article, “Goodbye teacher …”
(Keller, 1968). Thirty years on, the role the teacher plays is still critically important to the success of student learning (Palloff & Pratt, 1999; Willis & Dickinson, 1997). However, if the traditional role of the university teacher is simply transferred to the online learning environment, an exciting opportunity will be missed.

A crucial aspect of effective online learning may hold the key to the changing role of the university teacher. Wade (1994) pointed out that the promotion of learner autonomy means increased responsibility for the student which, if it is to succeed, requires “a strong framework of support and guidance for the student from the outset” (p. 13). The process of redefining and developing the crucial role of the teacher in student learning is one where the teacher provides coaching and scaffolding support as a central and important pedagogical element, and as an alternative to didactic forms of teaching.

Teacher as Coach

A traditional approach to the design of learning environments proposes that the best way to deal with complexity is to simplify a topic by breaking it down into its component parts. However, Perkins (1991) suggested that the temptation to over-simplify learning environments should be resisted, and instead designers and teachers should search for new ways to provide appropriate scaffolding and support. In this situation, the teacher provides the skills, strategies and links that the students are unable to provide to complete the task. The foundation for the notion of scaffolding lay in Vygotsky’s (1978) “zone of proximal development” described as, “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers” (p. 86). Vygotsky’s ideas prompted others to develop the notion of scaffolding (Wertsch, 1985), described by Greenfield (1984) as comprising five salient characteristics. According to Greenfield, scaffolding, in both the building and the educational sense:

1. Provides a support
2. Functions as a tool
3. Extends the range of the worker
4. Allows the worker to accomplish a task not otherwise possible
5. Is used selectively to aid the worker where needed (p. 118)
Many designers and administrators of online courses believe that such courses should be self-contained resources that include everything the student needs to be able to learn a particular topic. However, teachers who expect students to work individually online are not only denying them the benefits of collaboration, but also the benefits of expert assistance — providing hints, suggestions, critical questions, and the “scaffolding” to enable them to solve more complex problems.

Collins, Brown and Newman (1989) point out that coaching is highly situation-specific and is related to problems that arise as students attempt to integrate skills and knowledge, a role that is still best performed by the teacher. Care must be taken to ensure that a perpetuation of traditional pedagogies in a new medium does not occur, or in the words of (Van Dusen, 1997) the teacher must avoid bringing “old metaphors and techniques from traditional classrooms into virtual space” (p. 63). Instead of providing and delivering information, the university teacher’s principal function is to create collaborative, authentic and supportive learning environments within which the learner operates.

### Competencies for Online Teaching

If a teacher is to be fully prepared to face the challenge of online teaching, what specific competencies are required? Gustafson and Gibbs (2000) suggested:

*It clearly emerges that teaching in an online environment involves far more than simply transferring teaching skills from the classroom. The successful facilitator will need to learn strategies for developing online ‘antennae’, for humanizing the electronic environment, and new ways to guide students to discuss, critique and reflect together as they engage in the construction of meaning.* (p. 196)

Clearly, these types of strategies are not generally to be found in the repertoire of the face-to-face classroom teacher, nor would they need to be. Shotsberger (1997) argued that online teachers need the skills to blend communication technologies to foster a sense of community. More practically, online teachers also need strategies to deal with student frustrations caused by technology failure, and other technology-related problems such as viruses, unstable software and incompatibility problems (Bennett et al., 1999).

A workshop on *Competencies for Online Teaching* in the UK, set out to list the variety of competencies and roles teachers must be able to fulfill in becoming successful online teachers (Goodyear, Salmon, Spector, Steeples & Tickner,
The workshop examined online teaching from both the humanistic and cognitivist perspectives, and drew from these the identification and description of the main roles of the online teacher. Specifically, the eight roles identified were:

- **The Process Facilitator**: Concerned with facilitating the range of online activities that are supportive of student learning.
- **The Advisor-Counselor**: Works with learners on an individual or private basis, offering advice or counselling to help them get the most out of their engagement with the course.
- **The Assessor**: Concerned with providing grades, feedback, and validation of learners’ work.
- **The Researcher**: Concerned with engagement in production of new knowledge of relevance to the content areas being taught.
- **The Content-Facilitator**: Concerned directly with facilitating the learner’s growing understanding of course content.
- **The Technologist**: Concerned with making, or helping to make technological choices that improve the environment available to learners.
- **The Designer**: Concerned with designing worthwhile online learning tasks.
- **The Manager-Administrator**: Concerned with issues of learner registration, security, record keeping and so on. (Goodyear et al., 2001, p. 69)

For each of these roles, associated attributes were considered. For example, for the role of Process Facilitator six main tasks areas were identified:

- **Welcoming** (introducing, ice-breaking, helping learners articulate their expectations, familiarising learners with the environment and expected work practices, demonstrating the value of online activity)
- **Establishing ground rules** (maintaining rules, creating community, maintaining discourse)
- **Creating community** (maintaining discourse, creating community, providing positive feedback, ensuring safe environment, allocating roles, maintaining effective groups)
- **Managing communication** (sharing, listening, showing enthusiasm, establishing and maintaining motivation)
- **Modelling social behaviour**
- **Establishing own identity**. (Goodyear et al., 2001, p. 70)
In providing such an analysis, the authors of the report acknowledged that good teaching in conventional face-to-face settings would often readily transfer to the online equivalent. But they were also careful to point out that online teaching requires many new competencies that classroom teachers have never needed in the past, and that the ways in which good teaching is expressed in conventional and online settings may be very different.

**Seeking Solutions to Professional Development Needs**

The professional development needs of teachers moving to adopt online learning as a delivery medium for their courses are complicated by the myriad of differences and variations to conventional practices that such approaches involve. Developing the skills and expertise to deliver effective courses in online settings often demands changes to teachers’ approaches to learning, changes to their roles in the learning setting and changes to the actual delivery methods themselves. As the literature has demonstrated, appropriate professional development needs to target not only the nurturing of technical skills in use of the technology, but skills in working with online students, providing scaffolding and support and providing the forms of learning engagement required to bring about the conceptual changes being sought.

We were guided in our approach to this problem by previous work we had undertaken, which had explored learning designs for online learning which involved situating learning in authentic contexts (e.g., Herrington & Oliver, 2000). Our explorations with authentic learning suggested that such an approach was well suited to the learning needs of teachers in professional development courses. Our previous research sought to identify the characteristics of learning settings that supported knowledge construction and the acquisition of transferable skills and knowledge. From this research, we developed a framework describing authentic tasks and identified critical design characteristics (e.g., Herrington, Oliver & Reeves, 2003).

There are a number of conventional settings where learning has been organised around students seeking solutions to real-world problems through exploration and interaction with information-rich contexts (Bransford, Brown & Cocking, 2000). However, few examples of successful authentic online courses exist. In the main, universities have been slow to adopt innovative pedagogical approaches in their online course offerings. Typically, this has been caused by a lack of awareness of appropriate learning designs, and has applied even to the education of professionals where authentic approaches are considered important for the
application of theory to practice (Dehoney & Reeves, 1999). Frequently, when courses are developed for Internet delivery, the design emphasises the transmission of information at the expense of inquiry-based activity to promote thinking and understanding. Authentic learning offers a powerful approach that draws upon a wealth of research in constructivist and situated approaches to education.

An Authentic Approach to Professional Development for Teachers

A Graduate Certificate in Online Teaching and Learning was designed and developed to address the professional development needs of teachers seeking to develop the skills and expertise needed for online teaching. It was designed in a way that provided an authentic learning experience by replicating the online learning experience of students. The purpose of developing the course was to provide an avenue for teachers of adult learners wishing to develop skills and understanding in the design and use of online learning technologies. The aim of the program is to help teachers gain the confidence to design and plan effective learning environments using online technologies. It also focuses on developing teachers’ abilities to teach effectively using communications technologies. However, rather than producing a course that “taught” the basic principles of online theory and practice, the program was developed to immerse the teachers in an authentic online experience.

The design of the subjects or courses has been characterised by strongly student-centred environments, with authentic and contextualised learning tasks in collaborative settings, using integrated assessment strategies and learning scaffolded by strong teacher support. The program consists of four semester courses: Online Teaching and Learning, Resources for Teaching and Learning Online, Designing Effective Online Learning Environments, and an Online Learning Project Unit. The courses are designed to be delivered online and to instantiate a variety of effective online teaching and learning strategies. In this chapter, the approach of the first subject entitled Online Teaching and Learning will be described.

This introductory subject was designed to explore issues associated with the creation of effective learning environments, and draws heavily on recent theory and research. The authenticity of the site was guided by principles of authentic learning (Herrington & Oliver, 2000), such as authentic contexts and tasks, multiple roles and perspectives, the collaborative construction of knowledge, coaching and scaffolding by the teacher, and integrated assessment of learning.
The course is based upon a task where the learner takes on a role in a fictitious scenario set in a university. Rather than provide the learners with a structure comprised of text-based hyperlinks, weekly content, and buttons, a metaphor for the learning environment is provided. The main interface is one that resembles a resource centre familiar to teachers (see Figure 1). Learners click on the different objects to gain access to the resources and tasks beneath. The course content is effectively encapsulated within the activities and the associated resources, rather than presented in a linear fashion in modules or chapters.

The context is one where the learner is required to evaluate a Web site that has been set up as an exemplar for a consortium of universities planning to develop a joint online course. The learner then, in collaboration with other students in the course (“representatives from the other universities”), recommends a set of guidelines for effective online learning environments, and then redesigns the original Web site according to those guidelines. While comprising a single authentic and sustained task, the activity can be evaluated at three points. The task is presented in the form of a series of memos, setting out the requirements in a realistic manner. Within this complex task, the learners choose their own method of accomplishing the requirements, rather than completing weekly tasks and assignments, quizzes or multiple-choice questions that have been mandated by the subject teacher.

The pace of the subject is very much determined by the learners completing the work, within the constraints of assignment deadlines and collaborative opportunities. The assessable assignments themselves are fully integrated with the subject content, so the learners submit group and individual work responding in stages to the memos. Rather than completing essays or tests, the assignments are complex, sustained activities that could take a number of weeks to complete. Instead of reading and “regurgitating” other peoples’ ideas, the learners’
cognitive activity is based on reflecting, analysing, planning, and problem solving. The subject teacher’s role moves from one where content is organised and progress monitored, to one of a support person and coach. Resources are open-ended with the facility to explore beyond the immediate Web environment, rather than specific, bounded resources and reference lists. One might also argue that the result is deeper understanding and higher order learning, rather than the simple memorisation of facts and factual recall. The courses are offered only on the online mode, and thus provide prospective online teachers with the opportunity to experience learning from the student perspective.

**Conclusion**

The development of professional development activities and accreditation processes for online teachers is in its early days. Most teachers continue to use the successful strategies and processes that they experienced when they themselves were learners. Clearly the best opportunities for such professional development activities reside in the provision of quality courses that use authentic contexts and effectively “practise what they preach.”

The *Graduate Certificate of Online Learning* described in this chapter provides a tangible model of an online course designed to promote learning through a design based on the principles of learner immersion in an authentic learning experience. The move to embrace technology as a support for learning in schools and colleges is growing rapidly, as are expectations among the stakeholders that the online experience will provide enhanced learning challenges and outcomes. In this chapter, we have described a design for such learning environments which can possibly realise these expectations. The use of authenticity in its many forms in learning settings provides powerful supports for learning and is a strategy that can be adopted with existing technologies quite easily. It is likely that as more teachers become aware of the affordances and opportunities of the Web and its associated technologies, such learning designs will become more popular and more commonplace in all sectors.

Technology and flexible learning are, according to Lundin (1998), “inexorably linked.” Flexible learning has the capacity to transform university education, but only if care is taken to ensure that the new role of the online teacher is usefully informed by research, linked to new technologies, and transposed into a supportive, specialised and valued function. The consequence of ignoring this challenge will be the disaffection of a generation of students disillusioned with a university structure which is satisfied to provide content, technology and little else.
References


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