

# Using Simulation with Wikis and Journals to Teach Advanced Clinical Practice

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## INTRODUCTION

Recent changes in nursing in the UK have been designed to produce a new type of practitioner who will be emancipated, critically reflective, creative and autonomous (Casey 1996). The move away from ward based training and task orientation to the University has therefore created an ideology toward critical thinking, clinical judgement and autonomy of practice. Biley and Smith (1998) observe that the term nurse “training” has now been replaced by “education” suggesting personal development for life, rather than apprenticeship. These changes need to be addressed in a complex society with changing demographics, increasing costs and decreasing resources (Betchel *et al* 1999, Greenwood 2000). This has coincided with changes in the education sector. Biggs (1999) observes that the past ten years have seen an “extraordinary” change in the structure, function and financing of universities. Jarvis *et al.* (1998) document the many changes that have taken place in education over the past few years as follows;

- education to learning,
- childhood to adult to lifelong learning,
- teacher-centred to student-centred,
- face-to-face to distance,
- liberal to vocational,
- theoretical to practical,
- single discipline to multi-disciplinary to integrated knowledge,
- knowledge as truth to knowledge as relative,
- rote-learning to reflective learning, and
- welfare provision needs to market demands.

In addition, there is also a greater emphasis on continuing professional development with employers rather than students frequently being the clients of educational institutions (Greenwood 2000).

Against this background, the author has seen her programme for post-registration nurses training to be specialists in Infection Control practice move from a

face-to-face delivery, to paper, to paper supported online and finally to a fully elearning course. The challenge has been to continue to produce practitioners who are demonstrably competent in practice to be registered by the regulatory body.

## BACKGROUND

The programme in question is for nurses aiming to become expert practitioners. Benner (1984) defined an expert as someone who no longer relies on analytical principles such as rules and guidelines when assessing a situation and acting appropriately, having a deep and intuitive grasp of the whole situation from extensive experience. According to the regulatory body, the hallmark of a specialist practitioner is demonstration of higher levels of judgement, discretion and decision making in their clinical practice (UKCC 1998).

A social constructivist virtual learning environment (VLE) was determined to be most suitable to facilitate this, offering an approach to learning which emphasised student centeredness and enabled learning to be related to context and to practice (Oliver and McLoughlin 1999). It has been observed that distance learning provides a unique context in which to “infuse” constructivist principles as it’s expected that learners will behave as “self-motivated, self-directed, interactive, collaborative participants in their learning experiences” (Tam 2000 p1).

As nursing is situational, much of the knowledge needed for effective practice is embedded in practice itself. Delivering learning within a situated context enables this tacit knowledge to become explicit, structures knowledge relevant to its use and facilitates modelling of expert performance (Jonassen, Mayes and McAleese 1993). The aim was thus to facilitate situated learning.

Situated learning (Lave and Wenger 1991) asserts that knowledge and understanding are a product of the learning situation and the learning activity, being

embedded in that context (Miao 2004), with an active learner and the environment part of a mutually constructed whole (Hung 2001).

Lave and Wenger's work on situated learning shows the importance of legitimate peripheral participation for enabling effective learning in most contexts, with learners initially learning from observing but gradually gaining knowledge and skill, as well as the values and thought patterns of the experienced practitioners. Online, this can be facilitated by a community of practice, where the community models the role and language of a practitioner, and the individual's identity is shaped by participating within the community (Wenger 1998). This is a form of cognitive apprenticeship.

Cognitive apprenticeship (Brown, Collins and Duguid 1989) is a situated model of teaching where the teachers thinking, problem solving and decision making processes are made visible to the student to facilitate their learning of these cognitive and meta-cognitive skills. More competent peers or the teacher can also provide scaffolding to enable learners to reach higher cognitive levels (Faggiano et al 2004) akin to Vygotsky's "zone of proximal development"; the difference between independent problem solving ability, and potential ability under guidance (Hung and Chen 2001). Mentis et al (2001) introduce the concept of a "collective zone of proximal development" in online communities where there is both participation and mutual guidance between peers, resulting in group as well as individual learning. Community also produces and is supported by integration of learning with the workplace. Effective use of computer-mediated conferencing has been demonstrated to provide an effective situated learning framework to guide social participation in the development of a community of practice (Lee 2006) and this was the challenge undertaken.

## **IMPLICATIONS FOR DESIGNING LEARNING ENVIRONMENTS**

For effective learning, methods and media, technological or otherwise, need to be chosen on the basis of their impact on the learning process (Lambert and Williams 1999). The shift required in designing for a social constructivist paradigm is in using technology to create environments that support authentic activity rather than creating courseware in which learner tasks are prescribed (Goodyear 2000). Well designed tasks

based on cognitive theory are still required, but as a resource for situated learning activity. The second difference is that a "space" becomes a "place" in which a learning community can develop (Goodyear 2000). Herrington et al. (2004) assert that the critical characteristics of authentic activities aren't limited to real-life scenarios but can be incorporated into online courses. Petraglia (1998) argues that authenticity occurs not in the task, environment not in the learner but in the dynamic interactions among the three. The focus is thus on process not product, outcomes that are flexible not predetermined, and the use of open-ended rather than closed systems. This requires effective communication tools online, but it has been observed that communities of practice lend themselves very appropriately to computer mediated communication, particularly in designs inherently supporting collaboration and communication (Hung and Chen 2003).

## **Wikis and Blogs (Journals)**

Recently, communication tools such as wikis and blogs have been developed which are perceived as an advance on asynchronous computer-mediated discussion, being especially connective, receiving the name of "Web 2.0", or "social software- using the "the five devices of identity, presence, relationships, conversations and groups" (Alexander 2006 p33). Connolly and Stansfield (2006) have defined this as enabling the "third generation" of elearning where the focus is on collaborative learning environments, reflective practice via tools such as wikis and blogs, and interactive technologies such as simulation and games. A wiki has been observed to be an excellent tool for communication in an online environment as any user can add and read content via a web browser, to disseminate information, exchange ideas, facilitate group interaction and create documents that reflect the shared knowledge of the group (Augar et al. 2004). Fountain (2005) notes that "wiki pedagogy is literally-and figuratively-in the making" (p12). but observes the following features of a wiki which are congruent with social constructivist and situated learning. Wikis:

- Permit collaborative document editing
- Allow time to think
- Are democratic
- Maximise the written word advantages of reflection, reviewing, and publication

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