
Web learning in post registration nurse education: application and theory. A practical experience of combining humanistic, educational and technological considerations.

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BACKGROUND

As healthcare becomes more knowledge intensive, nurses are challenged to effectively manage clinical information and keep abreast of professional knowledge (Procter 2001; Snyder – Halpern et al 2001; Pare & Elam 1998). Rapid proliferation of new knowledge, expanding professional practice expectations and changing practice environments require that nurses become lifelong learners capable of constantly reflecting on and modifying their practice. Nurse education needs to embrace and make use of information technology learning media to help nurses meet these demands. This paper considers how post registration nursing students responded to a technology based learning package directed at enhancing mental health skills and care management. At the completion of the course the participants completed a module evaluation. Representative participants comments are presented throughout this paper to highlight issues raised within the literature on technology based learning.

AIM

Through highlighting the nurse educational challenge of teaching humanistic skills from a 'cold' technology source, this paper seeks to promote the vital importance of developing learning technology so that adult learning principles are reflected. This paper also seeks to demonstrate that the educational strategy of using technology based learning in a nursing programme can reflect the principles underpinning the nurse client relationship. Through drawing on a range of literature this paper also seeks to highlight the advantages and disadvantages of adopting technology based learning packages and the impact this has upon the role of the nurse tutor.

Education strategies need to focus on the long-term development of an information culture, and not as in the past, on short-term training designed simply to get people using computer and information systems (Ballard 2001). In turn, these training strategies should be fully integrated and

co-ordinated with organisational and mainstream educational programmes of learning. The University of Nottingham School of Nursing runs a post registration module in acute mental health care designed to enhance the skills and practices of healthcare professionals working in the acute in-patient care setting. This is achieved by developing knowledge and awareness of best practice within the field of acute adult mental health. The module is run at degree level over a twelve-week period combining Technology Based Teaching and Learning (TBTL) methods that include reviewing on-line material, group discussion (via a chat room) and six directed web/CD ROM study days.

This mode of delivery challenges to achieve the flexibility to meet the needs of a variety of students at different stages of their personal and professional development while equally, promoting humanistic nursing skills and attributes from a technology base. At present, learning applications tend to be sealed micro-worlds with little integration into the real world (DOH 2001). These tend to follow a similar pattern of design for a tutorial/narrative with questions of comprehension placed either during or at the end of each session. These learning applications can have inbuilt notebooks, reference materials, calculations and final tests. The primary learning activity tends to be the consumption of the content for the purpose of regurgitation during the final test. The module has tried to steer clear of this type of approach and has sought a greater interaction with the student through the available technological applications.

While rote learning and memorisation may have a place within the learning process, overwhelmingly learning is not something that is external to the learner nor is it solely a practice of grafting knowledge and understanding onto a learner (Robotham 1999). Rather learning is ideally a function of understanding, thinking actively about materials, their structure and relationships (Entwistle 1998). Students undertaking the post registration module were encouraged to develop their own interpretation of information through interactivity and hence construct their own

meaning. These learning principles reflect the needs of most adult learners who are self-directive, relatively independent and need to focus their learning on individual life issues (Goodsir 1978). Consequently, adult nurse learning becomes an experiential approach to individualised challenges that subsequently allow the learner to autonomously pursue relevant learning. Personal autonomy subsequently becomes both part of the nurse-directed learning process and a desired goal of the process (Kreber 1998). This capacity for personal autonomy also represents a significant client centred goal within the therapeutic relationship, a goal made more attainable by the nurse having their own capacity for autonomy (Clarkson 1989). Technology based learning can be shown here as supporting humanistic aspects of nurse education through the process of allowing nursing students the freedom to access, process and reflect upon information when and how they choose, dependent upon their adult needs at that time.

Participant 1

‘The work is up to you to do, you learn more when you have to find the information yourself rather than being spoon-fed’.

It is not enough to think that the ‘navigation’ itself will give the learner control and that this will automatically translate into intrinsic motivation and empowerment (Salmon 2003). Learners undertaking the post registration course were encouraged to engage in learning activities with the intention of understanding or seeking meaning, and not memorisation as the focus or objective of their learning. Nursing requires both instrumental and communicative learning to encompass the task orientated and critically reflective components of effective clinical nursing (Chase 1997). Communicative learning utilises speech, art and writing to promote an understanding of the meaning of ideals and values of others (Mezirow 1996). Incorporating web-based communication to facilitate rational discourse, central to communicative learning, not only offers another communication modality but also a modality that exports discourse from local geographical confines into vast pools of informed, rational and reflective professional others.

Participant 2

‘Guided study format was supportive of active yet comprehensive learning’.

Research has shown that the learning approach reflects learning outcomes (Entwistle and Ramsden, 1983; Watkins, 1983). Memorisation, learning information that can be reproduced, is associated with poor learning outcomes whereas students that are engaged with the intention of understanding or seeking meaning are associated with higher quality learning outcomes.

The simple transfer of text or other learning material into hypertext/hypermedia has no use as the primacy of the learning experience, as it only allows the user to follow predefined pathways and does not take full advantage of the technological platform; it is merely repackaging (Diller, 1995).

Students need to do more than access or look for information as the primacy of their learning experience, but should be enabled to examine, perceive, interpret and experience information (Brookfield 1987). Interactive media only provide opportunities for users to learn to visualise and understand complex relationships in ways that are not possible in other media. One possible solution to this might be to change the primacy of the learning experience to heuristic activities that trigger and encourage the student to seek meaning by accessing various disparate media and informational resources (Koppi & Chaloupka, 1997).

Participant 3

‘Encouraged me to access relevant information via the internet, an area I hadn’t really explored’.

The ability to adapt a computer system to meet the needs of all its users whilst delivering the essential information to support the nurse in practice must be one of the fundamental aspects of health information technology (Anderson et al., 1995). Ideally, nurses should be able to engage with computers as a component of their work and develop their own interpretations of the information provided by computers in order to construct their own meaning of that information for use in clinical practice (Drazen et al., 1995). To this end computers should be seen as an integral part of, and not something separate from, clinical practice if they are to make a worthwhile contribution to the work of those that use them (Button, 1993; Lorenzi and Riley, 1995).

Participant 4

‘Very relevant to practice, encouraged practice theory link’.

Web based learning also impacts upon the role of the nurse tutor (Taylor 1995). The demands of having technological expertise and utilisation skills diverts teacher roles away from the imparting of knowledge toward managing knowledge and promoting conceptual discourse, a shift already influenced by increasing nursing student numbers (Johnson 1992). Educators are required to produce resources, printed course material and computer generated materials suitable for a wide variety of learners whilst also providing opportunities for learners and courses that require social interactivity to promote learning (Taylor 1995).

Tutor

‘It was false to think that E learning would reduce my workload. A great deal of thought had to be given not only to the materials that I used but more importantly how these materials would be presented. I had to learn the additional skills of how to produce a web site and how to encourage student interactivity while ensuring that individual learning needs were not lost. The whole experience required me to undergo a change in my own approach to teaching’.

While professional peer support can be readily available for most problems arising from traditional classroom teaching, this resource pool diminishes when technological expertise is a requirement. Support is also required from the administration in the form of assistance from technicians, budget allocations and workload redistribution (Link & Scholtz 2000). Potential advantages to this role change exist in the change of relationship between student and tutor. Adult learning requires a reduction of the power differential between tutor and student (Mezirow 1996). Removing the tutor from the front of the classroom and into a shared communication modality is a demonstrative strategy to address the power differential. This rebalancing of a power differential also reflects the nursing curriculum and nursing practice where issues of equal partnership between nurse and service users are central. In this respect the use of information technology to diminish the teacher learner differential also reflects what is being sought in the nurse –client relationship.

While students reported positive aspects on learning through a technology base a balanced appraisal of this modality is required. Advantages of students being able to turn the tutor on or off, avoiding travel and parking cost or increasing

access and life quality to students with disabilities are secondary to ensuring learners are internalising the structure and relationship of the presented materials (Burgstahler 1997). Students who are struggling or unmotivated are not easily detected and the technology medium can be experienced as cold or unemotive (Christianson, Tiene & Luft 2002). These educational concerns are offset by how technology based learning can enhance the joining of practice and theory with an entire intake group being able to communicate with tutors whilst on placement rather than waiting for a campus based practice based learning day. The non-threatening environment to discuss ideas and engage in discourse also makes this learning medium a powerful consideration in promoting group reflective practice. (Platzer, Blake & Ashford 2000). Organisational considerations such as the presumed savings associated with computer based learning and the reduced need for valuable classroom space are balanced with initial high costs in equipment and training tutors who are still required to provide guidance to students (Malloy & DeNatale 2001).

CONCLUSION

The matrix of educational, organisational and professional considerations makes the use of technology in nurse education both exciting and potentially non-beneficial. Pivotal is the application of adult deep learning principles to the technology rather than the technology dictating what is taught and how it is taught. With this overarching educational approach in place tutors are then challenged to use the technology so that the themes of the curriculum and the nursing profession are seen as being congruent. Health and education organisations must then act in partnership to ensure the technological and human resourcing of the technology learning project is in place. With these essential criteria met the educational and professional advantages of embracing technology-based learning can be captured and utilised by nurses within their daily practice.

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