

Nursing Practice Review Technology

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Developments in technology can enhance and encourage learning in nurse education. This article considers some recent updates to e-learning technologies

Using e-learning to enhance nurse education

In this article...

- › What is technology-enhanced learning?
- › Different ways that students learn
- › What TEL offers to nurse education

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Abstract Lee P (2015) Using e-learning to enhance nurse education. *Nursing Times*; 111: 43, 18-19.

Technology-enhanced learning can be used creatively in education and is especially useful for students entering nurse training through the widening participation route. This article reviews previous technologies and teaching methods, and details those that are emerging and being debated in the educational press.

Technology-enhanced learning (TEL) is developing quickly but before rushing to implement new e-learning technologies, it is important to consider how individuals learn. This will help make learning more student, rather than teacher, centred and should result in deeper learning. The issue is increasingly important as more and more student nurses are entering the profession through the widening participation (WP) route and may not have experience of independent study (Crick et al, 2014).

Students learn in different ways; many WP students have been assessed using the visual, auditory, reading (and writing) and kinaesthetic (VARK) learning preferences questionnaire (Bit.ly/VARKQuestionnaire), which assesses their preferred learning method. However, not all agree with their VARK results. Many A-level students and others entering pre-registration nursing through a traditional route also demonstrate strong preferences for using different types of learning.

WP students may have undertaken various learning activities previously so

first-year students may need a mixture of them, as some may not be used to reading independently. As such, learning needs to be planned around various activities; TEL offers this possibility.

What is TEL?

E-learning is “any learning that uses ICT” (Higher Education Funding Council for England, 2005) or “the use of technology as part of a learning process” (Health Education England, 2013). Government policy has outlined the benefits of e-learning in higher education (Moule et al, 2010) and the Department of Health (2011) has produced a TEL framework of six key principles (Box 1).

Developments in technological learning have generally centred on using educational institutions’ virtual learning environments (VLEs). These have mainly been used as a repository for course notes and handouts and, although Stiles (2007) suggested the “death of the VLE”, the platform is still useful as many nursing students may have experience of using one.

Learning styles

Each VARK style of learning is considered below, with technologies that can be easily implemented. Remember, these have no set boundaries and learners may prefer more than one style of learning.

Visual

For visual learners there is a wealth of material on websites such as YouTube. As with any external source, care must be taken to make sure the material will help learners achieve a stated learning outcome and be neither too brief nor too in-depth – this may discourage further learning.

Short videos can be used as preparatory

5 key points

- 1 Increasing numbers of students are entering nursing through the widening participation route
- 2 Lecturers need to remain up to date with developments in technology-enhanced learning to benefit students
- 3 Students can have a preference for learning from visual, auditory, reading and kinaesthetic methods
- 4 TEL can be used to make learning more accessible
- 5 Some learners may not feel confident with TEL and will need support



Technology enhanced learning can cater for different preferred learning methods

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work; students can be given a list of topics to look out for when watching a clip so their learning is focused. Some other sites, such as www.social-care.tv, require registration or may charge a fee for basic training but may be useful for students who need an introduction to topics before starting placements but do not necessarily have to achieve competencies in those topics.

Auditory

Podcasts can be useful if students have missed a lecture, or to summarise lectures or define difficult concepts. This involved teachers mainly recording for students, but sites such as Audioboom (bit.ly/audio-boom) now give students a voice by allowing them to record directly onto a computer. Teachers can therefore give simple instructions for any task and students can post summaries of their understanding of a particular topic.

Reading (and writing)

Course leaders need to work with librarians to ensure at least one up-to-date key text for each unit/module is available as an e-book. Institutions with established liaison between departments and libraries are likely to have this in place; others could take this opportunity to lobby for resources.

Blogging has been used in VLEs to enable students to consider practice issues while on placement. E-portfolios can also be useful – students who have recently studied in the post-16 sector in the UK should be accustomed to using them (Beetham, 2005).

Both technologies can be used as learning platforms together with a VLE.

The use of wikis (websites that allow collaborative modification) has been considered (Moule et al, 2010); these can be useful when students need to define terms or concepts.

Kinaesthetic

Kinaesthetic learners learn by “doing”. Many students are kinaesthetic learners and “doing” is what practice experience is all about. They can now use still pictures or videos taken on smartphones as evidence of their practical skills, as long as service users’ confidentiality is maintained.

Developments within TEL

With all four learning styles identified, some feed-forward guidance notes of what to look and/or listen for will help learners stay focused. They should also be encouraged to revisit resources to ensure understanding; this should be demonstrated by writing on a VLE discussion board and/or uploading an audio recording.

BOX 1. PRINCIPLES OF TEL

- Patient-centred and service-driven
- Educationally coherent
- Innovative and evidence based
- High-quality educational outcomes
- Value for money;
- Ensures equity of access and quality of provision

Source: Department of Health (2011)

The methodologies discussed relate to asynchronous learning (that is, learning at different times, such as using distance learning materials when convenient); synchronous learning (students learn at the same time as each other) uses video-conferencing or voice over internet protocol (Lee, 2009). A greater number of students can be reached via asynchronous learning, but education theory and practice will generally need to be more at the instructivist learning end of the continuum (Moule et al, 2010), unless the teacher is confident in making “break-out” rooms so the learning could be more constructivist.

The increase in TEL in healthcare has led to a recognition that healthcare educators need to be competent at using the technologies and preparing for their different roles (Koch, 2014; DH, 2011; Moule et al, 2010).

Discussion groups within a VLE would normally be considered asynchronous, but could be made synchronous so a lecture/group tutorial could take place. Tutorial groups could also make use of some commonly used social networking sites.

Social networking

The last few years have seen an exponential rise in the use of social networking. Some educational institutions have embraced social networks for learning and have tried to consider the relevant pedagogy, as well as developing their own policies on the use of social networking. Likewise the Nursing and Midwifery Council has developed guidance for both registrants and students (NMC, 2012).

Used effectively and within the above policies and guidance, social networking has the potential to build and maintain online academic communities quickly, as the majority of students are familiar with sites such as Facebook. For example, closed Facebook groups can be used to draw students’ attention to updated information elsewhere such as announcements on an institution’s VLE. Some institutions might then prefer to have online discussions within their VLE.

Considerations for students

With all the technologies listed above, consideration must be given to students with particular health requirements or who do not have access to the necessary technology at home. Any of the technologies would, of course, be easier to get to grips with for those who have already experienced some aspects of TEL.

For lecturers who feel confident using the technologies, an institution’s e-learning expert would be able to advise on potential further developments; those who are less confident would find it beneficial to develop collaborative relationships with an e-learning expert.

Conclusion

This article has considered some recent advances in e-learning technologies. Entrepreneurial educationalists need to continue to lobby for further developments within TEL, to not only enhance the student experience but also to encourage deeper, more meaningful learning.

Staff development needs may arise, but having teachers who are learning a new technology or reflecting on their current practices should enhance the student experience. **NT**

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