Innovation in Education: using eLearning to improve the quality of education for practice nurses

This article outlines Education for Health’s approach to eLearning. It will discuss the benefits of eLearning, the developing theory within the context of technology, evaluate the approach as well as describing feedback from students and a case study on a commissioned learning resource.

SEVEN PRINCIPLES OF GOOD PRACTICE IN UNDERGRADUATE EDUCATION10

Education that
1. Encourages contact between students and faculty
2. Develops reciprocity and cooperation
3. Encourages active learning
4. Gives prompt feedback
5. Emphasises time on task
6. Communicates high expectations
7. Respects diverse talents and ways of learning

Innovation is seen as vital for future of the NHS; it is widely recognised that the QIPP agenda cannot be delivered without it. Technology has long been seen as an important means of facilitating innovation offering ‘unprecedented opportunities’ and demonstrating benefits including the potential for different ways of working, saving time and money and improving care.1,2 The new NHS information Strategy has at its heart the requirement for a culture shift in the way professionals think, work and interact, mirroring the increasingly important place that technology has in all aspects of society. Improvements in areas such as bandwidth, storage, processing speed and software have the potential to impact on education provision and make flexible opportunities a reality for busy health care professionals.3 On line courses are increasingly popular and organisations such as the Royal College of Nursing and the Royal College of General Practitioners have excellent resources to support life-long learning.

Five years ago the potential for eLearning to revolutionise the way students learn was recognised, and led the organisation to set out to identify and make best use of the full potential of technology in the learning process.

MOVING TO eLEARNING

The decision to move from a highly successful format of delivering modules using paper based distance learning materials was not one to be taken lightly. As an organisation, concerns about replacing folders with something on line were many and varied. Surely our students are won’t be interested in learning that way? Will they be able to access a computer at work when they are so busy? Or at home when they will be in competition with their children to use it? What about their broadband connection? Fortunately, the reality has proved very different as the growth in the use of technology to support both personal and professional aspects of busy lives demonstrates. This growth has continued and, with research showing that the average household in the UK has three different Internet-enabled devices and that 70% have access to broadband, access clearly is not a problem. The increasing use of social media is opening up the regular use of technology to a far wider audience and it is interesting that the strongest

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growth in the last two years in this area has been seen in the 55+ age group. Add this to the fact that women are greater users of social media than men,1 and it becomes clear that not all of our student population is likely to find using technology difficult. The growth of eLearning as a tool within the NHS is opening up the availability of education and training to a wider audience.

eLearning includes a wide range of technical applications and educational approaches and can be defined as any learning taking place on a computer, usually attached to a network, either locally or via the internet.1 It should not be used as an end in itself but appropriately integrated in a blended approach to learning, and implemented to address specific learning and clinical needs. If properly implemented, it can be as effective as more traditional methods of education.2 It has been shown to support improvements in student behaviour including communication skills and procedural skills.6,7 Education for Health felt that eLearning would help students to understand a concept and facilitate the application of this knowledge and understanding to clinical practice as well as increasing flexibility and access of study and enjoyment of and engagement with learning.

Research underpinning eLearning is still in its infancy. However, educationalists tend to see ‘constructivism’ as the theory most closely aligned to for eLearning as it supports learners in building their knowledge through active learning based on their own experience. It promotes a learning environment which has richness and promotes independent enquiry leading to a deeper understanding of the content.8 This also sits well with Knowles characteristics of Adult Learners.9 Knowles describes adult learners as:
• Being self directed
• Being internally motivated
• Using personal experience to enhance learning
• Preferring to use knowledge and skills that are personally applicable
• Preferring problem centred instruction and immediate application of learned information.

OUR APPROACH
EiH’s approach to eLearning is in line with the six key principles which make up the Framework for technology Enhanced Learning1 and suggests that eLearning should:
• Be patient centred and service driven
• Be educationally coherent
• Be innovative and evidence-based
• Deliver high quality educational outcomes
• Deliver value for money
• Ensure equity of access and equality of provision

The portfolio includes free to access CPD case studies in a variety of respiratory settings (http://real.educationforhealth.org/) as well as on line accredited modules in Asthma, COPD, Allergy, Diabetes, Heart failure, Cardiovascular Disease Risk and Evidence Based Healthcare. This reflects the charity’s primary objective:
• To develop the skills, knowledge and competence of health and social care
providers to earlier diagnose, manage and treat long term conditions by maintaining Education for Health as a centre of excellence in lifelong learning’. In line with the organisation’s teaching and learning strategy, the aims of developing eLearning have been to:

- Ensure necessary infrastructure/support services are in place to enhance the total learning experience
- Achieve excellence in teaching and learning provision
- Remove barriers to learning
- Increase the skills and knowledge of practitioners in health and social care
- Provide a blended approach, balancing on line provision with face to face days

Module materials were written and designed by in house clinical experts based on simple organisation of each page using an effective layout, as well as tools such as drag and drop and audio, to appeal to all learning styles. The importance of blended learning (face to face study days to support distance eLearning) for the majority of our students is something we were keen to maintain, and students do still value the opportunity to attend study days and engage in interactive interprofessional learning. The eLearning platform has also been utilised to develop support materials for students carrying out summative assessment, and to provide additional information to support learning, such as the student guide. The overall approach we have taken is based on Chickering and Gamson’s Seven Principles of Good Practice in Undergraduate Education. These principles are based on 50 years of research focusing on how ‘teachers teach and students learn, how students work and play with one another, and how students and faculty talk to one another’. Technology can be used as a lever to fulfil this approach.

Some examples of how technology was applied to these principles include:

- The use of a reflective diary to encourage active learning. Space is provided on each page of the eLearning resource to allow students to make notes. As well as allowing students to bookmark sections for further consideration, it encourages them to think about what they have learnt in that section, relate it to past experiences and record for future reference.
- The availability of prompt feedback in various activities including assessment tools, drag and drop, and the provision of expert answers for formative exercises.
- Time on task is maximised by providing tools such as external links to further information and evidence.
- The provision of a flexible environment where diverse ways of learning are respected meaning that students can learn at a time and pace and in a way to suit variety of styles – student-centred learning, flexible, own pace, variable timescale, location-independent, variable workspace, variety of learning modes, and learning preferences are catered for.

**EVALUATION**

Students undertaking eLearning modules complete an electronic evaluation regarding the ease of accessibility navigation and use friendliness of their eLearning experience. Feedback from these is collated via Survey Monkey and has been particularly important in the early stages of eLearning development. The following feedback is typical of many students who were apprehensive about studying on line but found the advantages it offered outweighed the challenges of learning in a new way.

‘I was extremely anxious commencing the eLearning course… I cannot praise the content of the course enough. It is so well laid out and explained in such a clear and interesting format. It has made me want to learn more and be so interested in the subject’
Reciprocity and cooperation amongst students will be supported by the development of online forums for students which will encourage collaborative learning and the sharing of ideas which deepens learning. On line data collection and transfer provides other opportunities and our Learning Management System has great potential for use as an analytical tool to provide an insight into the performance of learners. This will be invaluable in supporting the planning of teaching activities and support and to improve the quality and value of the learning experience. Further developments of the VLE will also enable us to improve the administrative service offered to students by for example having their own secure individual account to manage the practical aspects of studying with education for Health such as updating their own personal details and downloading maps and directions to study day venues as well as giving them a lifelong record of their learning achievements by recording their results within their personal accounts.

CONCLUSION

Education for Health recognised at an early stage the potential for technology to revolutionise the way we educate our students and how they learn and set out to identify and exploit its full strategic potential. The importance of human contact in the form of telephone student support as well as face to face supporting study days cannot be overestimated. However, eLearning clearly has the ability to appeal to all learning styles as well as offering opportunities for reflection and the application of theory to practice, allowing deep learning to take place. There is however a need to build a comprehensive evidence base to properly evaluate how technology is best used to support learning for health care professionals in order to plan for the most effective use of this type of education for the future.

FURTHER INFORMATION

To discuss the on line modules email j.neal@educationforhealth.org. To view a taster or to sign up for education and training visit http://educationforhealth.org and select the Education and Training tab.

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