

## E-Learning: some unanswered questions

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### To the Editor

Pourghaznein et al. have reported the results of a fascinating study into the effects of e-learning, lectures, and role playing on knowledge acquisition, retention and satisfaction of nursing students (1). Perhaps, their most interesting finding is related to e-learning. E-learning resources have been shown to be an effective and cost-effective method of healthcare professional education in other contexts – so why have these results emerged in this setting (2,3)? Detailed analysis of the paper reveals that the investigators used slides, flash videos, and audio files to deliver e-learning. These formats are reasonable – however, they do not unleash the full potential of internet based learning. The web allows interactivity, formative and summative assessments, simulation, and the articulation of reflections. Modern online resources can be accessed on mobile devices and even when off line by means of apps (4). Sophisticated resources can enable learners to test and train problem solving and even procedural skills. The current generation of undergraduate and postgraduate learners increasingly expect this level of technology in their online resources. Anything less will disappoint them and this will be reflected in their evaluations. It would be interesting to see the results of a follow up study if the investigators used a variety of modern formats in their e-learning resources.

Further insight can be gained by looking

at the reasons cited for lower satisfaction from e-learning. Students clearly missed face to face relationships and interactions between students and teachers. However, equivalent experiences can also be delivered online. Live video conferencing can enable constant simultaneous interaction between learners and tutors. The software required to deliver this experience is now low cost – indeed some of it is free. Other technologies such as Google notes can enable learners to co-create notes during an online lecture. Some web 2.0 technologies can enable social learning whilst online (5). E-learning no longer needs to be an isolated or isolating experience.

Pourghaznein et al. have given us tantalising information on the attitudes and behaviours of learners – a further study using different e-learning formats may better satisfy both students and researchers.

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