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**Title:** Developing a Self-Directed e-Learning Package to Enhance Radiological Interpretation in Medical Students

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**Introduction/Background**

The ability to interpret an X-Ray is a vital skill for graduating medical students in their early career. However, research has suggested that radiological interpretation skills are less than satisfactory in not only medical students, but also in residents and consultants.

**Purpose/Objectives**

This study investigated the effectiveness of e-learning for the development of X-ray interpretation skills in pre-clinical medical students. Competencies in clinical X-Ray interpretation were assessed between students in cohort 1 who received the 'intervention', which was the e-learning course, and cohort 2 who did not receive the intervention.

**Issues/Questions for exploration or ideas for discussion**

Could e-learning be used as an alternative to deliver radiology tuition to medical students and is it an effective method of developing competency in radiological interpretation for medical students.

**Results**

Assessment of the post-training cohort 1 students showed significantly higher scores ( $210 \pm 20.12/300$ ) than the scores of cohort 2 ( $186 \pm 23.78/300$ ;  $p < 0.01$ ). One year subsequent to the training package, the intervention group retained higher radiology interpretation scores ( $200 \pm 17.39/300$ ) versus the control students ( $186 \pm 23.78$ ;  $p < 0.01$ ) without a significant decrease from their original result.

**Discussion**

The development of online simulation education allows students to perfect their skills and allows them learn effectively and retain this knowledge. The teaching of radiology lends itself particularly well to implementation on a computer-based format due to the highly visual nature of the content.

**Conclusion**

The development of the Internet and advances in multimedia technologies has provided an excellent environment for computer-assisted education. With the establishment of more rural clinical schools, the electronic delivery of radiology teaching through websites will become a necessity.