

Technology enhanced blended learning: refreshing clinical skills education

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Introduction

George Eliot Hospital (GEH) NHS Trust delivers clinical skills teaching for students from Warwick Medical School throughout the curriculum. Traditionally clinical skills teaching has been delivered via face to face sessions which cover theory, practical skills and simulated assessments.

Technology enhanced learning has been recognised as a great way to improve access, flexibility and choice, widen participation, meet expectations and diverse needs and assist teachers to develop innovative delivery methods (HEFCE, 2009). JISC (2008) found that appropriate use of technology leads to improvements in teaching, learning and assessment which in turn improve the satisfaction and achievements of learners.

The clinical skills and resuscitation tutors at GEH wanted to refresh the learning resources that they used and test new modalities for delivering clinical skills sessions. They choose to test a technology enhanced blended learning approach rather than relying purely upon face to face delivery.

This research focused on the acceptability of alternative learning methods for both medical students in junior and senior blocks and the educators delivering the teaching and assessment sessions. The team also wished to explore the feasibility of using a variety of different media including e-learning software such as storyline and video in an effort to make learning more interactive and fun.

Methods

Objective: To demonstrate that technology has the ability to refresh educational delivery within clinical skills teaching.

Aims:

- > To develop a technology enhanced blended learning approach for clinical skills teaching specifically urethral catheterisation.
- > To explore the acceptability of this approach through obtaining and analysing student and tutor feedback.
- > To build a template for developing further clinical skills modules.

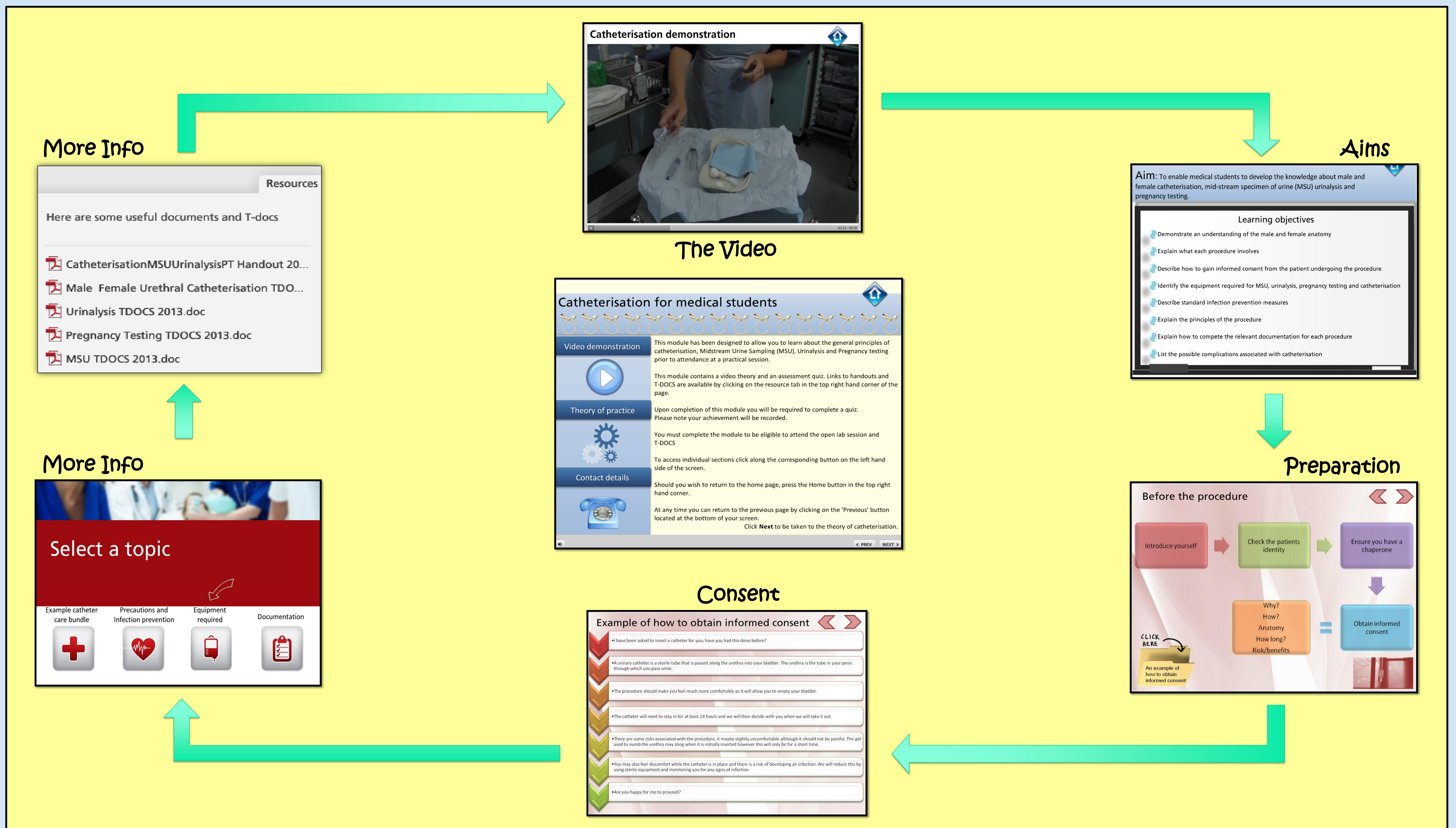
Design: Pilot study

Setting: An Acute Hospital NHS Trust

Participants: Junior/Senior medical students n= 33

Clinical skills and resuscitation tutors n=2

Interventions: An e-learning module was developed for urethral catheterisation, pregnancy testing, midstream specimen of urine and urinalysis, which were the clinical skills delivered during blocks 4 and 9. The module included a video, theory and a quiz to assess knowledge and was hosted on the training tracker learning system. Students were given user names and passwords and asked to access the module prior to the taught session and simulated assessment.



Results

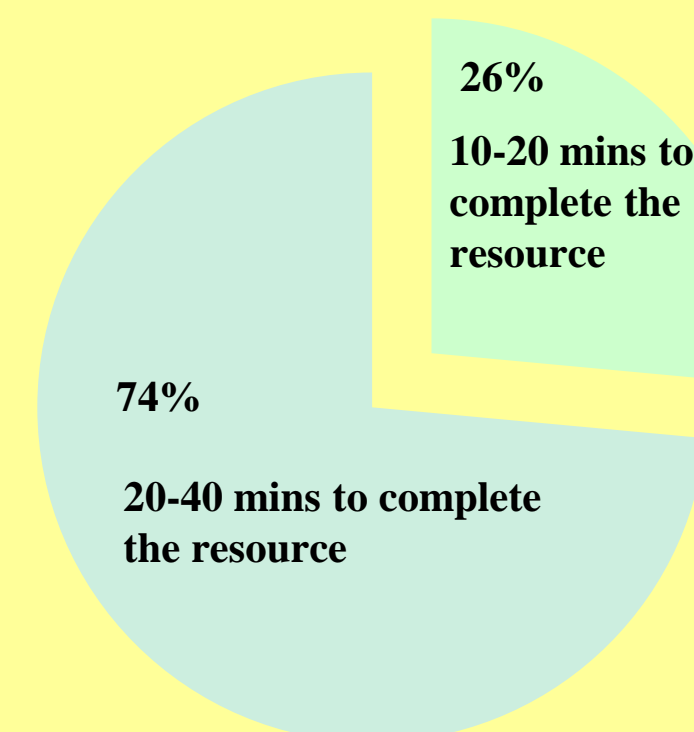
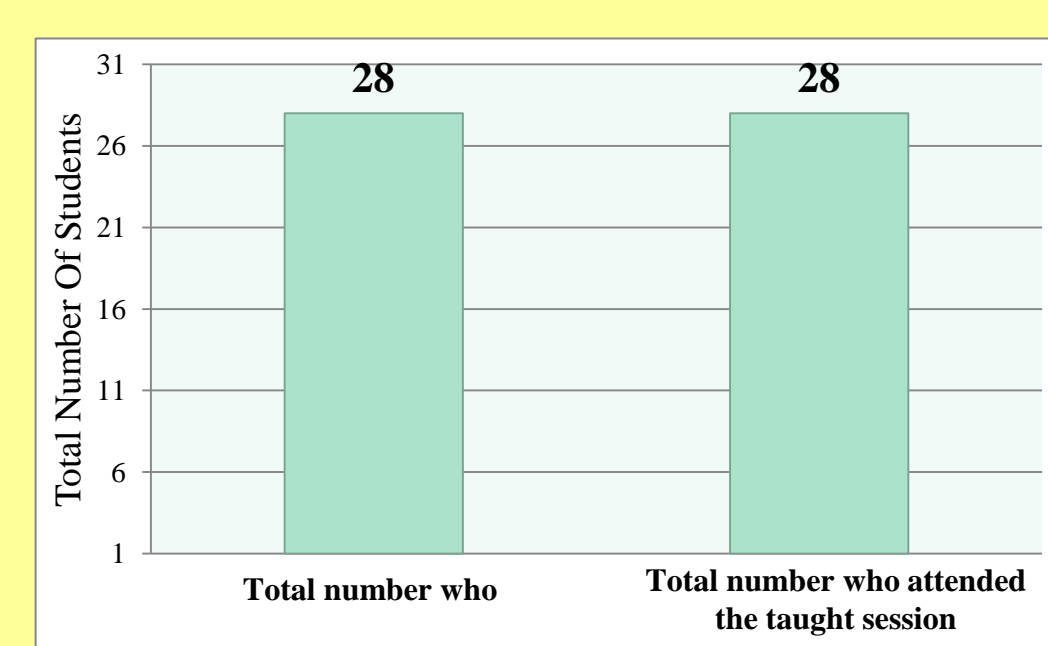
N = 31 students (24 Juniors/7 Seniors)

90% (28 out of 31) completed the module
90% (28 out of 31) attended the taught session

100% of students attending the session had completed the resource
100% of students completed the resource at home

25% of students took 10 to 20 mins to complete the resources
75% of students took 20 to 40 mins to complete the resource

60% scored 100% in the e-learning quiz
100% pass rate during assessment in simulation



Student and tutor feedback

"I would really like to have e-learning packages for ABG, NG tube and suturing".

Would you access a similar e-learning package for cannulation and venepuncture? **Yes 75%**

Would you re-access this e-learning material to refresh your memory? **Yes 75%**

"Maybe add how to make the package full screen on a Mac"

Do you feel the package benefited you prior to attending the teaching session? **Yes 100%**

"The students had obviously prepared before the session hence the 100% pass rate at T-DOCS"

"The time required for teaching was reduced which allowed the students to practice for longer."

Did you enjoy this approach with teaching materials being available before the session? **Yes 100%**

"Make the video more obvious"

Would you welcome this approach in other clinical skill teaching areas? **Yes 100%**

Do you feel the content was detailed enough for you? **Yes 100%**

"I think it was clear, well structured and of a good length. It was easy to access and made the T-DOCS process run more smoothly"

Next Steps

Media students from the local FE college booked to record cannulation and venepuncture videos.

Develop e-learning resources for cannulation and venepuncture.

Share new resources with clinical skills and resuscitation tutors at UHCW, SWFT and WMS.

Try to build a library of resources for all clinical skills.

Acknowledgments

Block 4 and 9 medical students at George Eliot Hospital NHS Trust during September 2013

Clinical skills and resuscitation tutors at George Eliot Hospital NHS Trust

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Sumir Nair – Video Director

Further information

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Literature cited

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