

Comparison of student radiographers abilities to estimate distance, accurately collimate the x-ray beam and their knowledge of equipment in a real x-ray room after training with a screen based computer simulator

Submission date 28/07/2009	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 26/10/2009	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 21/07/2016	Condition category Other	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

Contact name
Prof Chris Colbourn

Contact details
School of Health and Social Care
Teesside University
Borough Road
Middlesbrough
United Kingdom
TS1 3BA
+44 1642 384100 ext. 2953
Chris.Colbourn@tees.ac.uk

Additional identifiers

Protocol serial number
128/08

Study information

Scientific Title

Prospective monocentric blinded randomised controlled trial of a tutor-facilitated screen-based computer simulated virtual radiographic environment compared with tutor-supported groupwork in a radiography skills lab

Acronym

SIMXRAY

Study objectives

Training in a screen based computer simulated virtual radiographic environment improves participants distance estimation, collimation accuracy and equipment knowledge as measured in a real x-ray room.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Teesside University School of Health and Social Care Research Governance and Ethics Committee, 29/07/2008, ref: 128/08

Study design

Prospective single centre single blinded randomised within-subject repeated measures experimental trial

Primary study design

Interventional

Study type(s)

Diagnostic

Health condition(s) or problem(s) studied

Radiography skills training

Interventions

The intervention group will attend eight hours of screen-based computer simulation workshops (n = 20) facilitated by a tutor. There will be sessions, split into three 45-minute labs, once a week for three weeks (the simulation is a commercially available product, ProjectionVR 3.3, offered by Shaderware Ltd, UK).

The control group will participate in nine hours of small group skills labs in a real radiography room (n = 6) facilitated by a tutor. There will be an initial one hour introduction, followed by two four hour labs; session frequency varies due to individual small group timetables. All three sessions will be completed within four weeks.

During this trial period, both groups will attend all other lectures on the course as normal, but this will not include any further time in the radiography room or in clinical placement.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. Ability to name five parts of real radiography equipment as indicated by the assessor
2. Skill in using equipment in a real radiography room, measured by time taken to complete two standardised tasks
3. Ability to estimate source to image distance and collimate to specific standard sizes, observed by measuring set areas and distances against the target areas and distances

These observations will be repeated before and after the interventions. Participants will be given the opportunity to provide a written comment on both methods of learning at the end of the trial, this will not exceed 200 words.

Key secondary outcome(s)

No secondary outcome measures

Completion date

11/11/2010

Eligibility

Key inclusion criteria

Two cohorts (approximately 40 students each) enrolled on a pre-registration diagnostic radiography course will be offered the chance to volunteer. All aged 18 - 50 years, both male and female.

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

All

Key exclusion criteria

1. No previous experience in a radiographic environment
2. Capable of giving informed consent

Date of first enrolment

22/09/2009

Date of final enrolment

11/11/2010

Locations

Countries of recruitment

United Kingdom

England

Study participating centre**Teesside University**

Borough Road
Middlesbrough
United Kingdom
TS1 3BA

Sponsor information

Organisation

Teesside University (UK)

ROR

<https://ror.org/03z28gk75>

Funder(s)

Funder type

University/education

Funder Name

Teesside University (UK)

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary**

Available on request

