

Harris, Dean, Smart, Shelley, Gill, Robert, Miller, Paul K., Bolton, Gareth, Waring, Lorelei and Marland, Amanda (2018) The impacts of a clinically-orientated approach to teaching physics in ultrasound to sonography students. In: UK Radiological and Radiation Oncology Congress: Disease and Diversity, 2-4 July 2018, Liverpool, UK. (Unpublished)

Downloaded from: <http://insight.cumbria.ac.uk/id/eprint/3822/>

Usage of any items from the University of Cumbria's institutional repository 'Insight' must conform to the following fair usage guidelines.

Any item and its associated metadata held in the University of Cumbria's institutional repository Insight (unless stated otherwise on the metadata record) may be copied, displayed or performed, and stored in line with the JISC fair dealing guidelines (available [here](#)) for educational and not-for-profit activities

provided that

- the authors, title and full bibliographic details of the item are cited clearly when any part of the work is referred to verbally or in the written form
- a hyperlink/URL to the original Insight record of that item is included in any citations of the work
- the content is not changed in any way
- all files required for usage of the item are kept together with the main item file.

You may not

- sell any part of an item
- refer to any part of an item without citation
- amend any item or contextualise it in a way that will impugn the creator's reputation
- remove or alter the copyright statement on an item.

The full policy can be found [here](#).

Alternatively contact the University of Cumbria Repository Editor by emailing insight@cumbria.ac.uk.



Conclusion: Small changes in language across recognized levels of radiography practice may have a significant impact on the expectations of decision-making, responsibility and autonomy of radiographers in clinical practice. The majority of competencies reflect generic radiographic professional standards, whereas CT clinical task competencies remain largely undefined.

P229 Reducing anxiety in new ultrasound students: is peer-mentoring an effective method?

Sara Copsey¹; **Gill Harrison**²; **Allison Harris**²

¹Barts Health NHS Trust; ²City University London

Background: Returning to university after a period away from academia has been reported to bring a degree of stress and anxiety amongst ultrasound students. Peer support has been cited as a method of reducing anxiety in undergraduate students from a variety of disciplines, including those within the healthcare sector.

Method: This study aims to identify whether peer discussion could be effective in supporting postgraduate ultrasound students. Nineteen new ultrasound students (65%), from a single institution, participated in a session of peer support as part of the induction programme. Peers from the previous cohort answered questions regarding the course in small groups. Anxiety levels before and after the session were measured using the short form Stait Trait Anxiety Inventory (STAI). Feedback was also collected via a short questionnaire. Non-research participating students were involved in the peer support session, so none were disadvantaged.

Results: There was a significant reduction in anxiety scores following the session of peer mentoring ($p < 0.0001$). Student opinion favoured this method of support.

Conclusion: Students valued the peer support session, which provided a relaxed environment to discuss their concerns. Anxiety levels were significantly reduced following the session. The use of peer support will be developed further in the ultrasound programme to evaluate other areas which might benefit the student learning experience. The value to the peers could also be investigated.

P230 The impact of a clinically-orientated approach to teaching physics in ultrasound to sonography students

Dean Harris¹; **Shelley Smart**²; **Robert Gill**³; **Paul Miller**²; **Gareth Bolton**²; **Lorelei Waring**²; **Amanda Marland**²

¹University of Liverpool; ²University of Cumbria; ³School of Women's and Children's Health, University of New South Wales (UNSW)

Background: It is recognised by professional bodies (eg CASE1) that student sonographers need to be educated in the science and technology of ultrasound equipment, both for patient safety and to obtain the best diagnostic image possible. Sonographers who study ultrasound physics are known by teaching practitioners to have difficulties in comprehending the topic^[2]. The purpose of this action research was to evaluate if deeper learning might be achieved through more engaging activities which focussed on active learning, and incorporated stronger links to clinical applications.

Method: A review of current ultrasound physics teaching methods was conducted via peer review. The student's preconceptions were explored using a survey. A newly designed module was purposefully incorporated small group tutorials led by members of the academic team and practical ultrasound lab activities. The impact of this intervention was evaluated via student feedback.

Results: The majority of respondents had negative experiences learning ultrasound physics. Following the intervention, students generally felt they had an improved understanding of ultrasound physics and technology and that they were better equipped to apply this to their clinical work.

Conclusion: This action research adopted qualitatively confirmed that the more engaging methods has improved student's perception of studying ultrasound physics and the belief that physics does indeed apply to their work as clinical practitioners. Overall, this makes students more likely to apply these principles in clinical practice, thereby aiding the development of safe and competent practitioners. Future studies can expand this approach to larger cohorts of students.

1. Consortium for the Accreditation of Sonographic Education (2015) CASE Validation and Accreditation Handbook. Available at: <http://www.case-uk.org/handbook/> (Accessed: 17th January 2013). 2. Oates, C.P., 2015. Reviewing the curriculum for physics and technology in postgraduate sonography courses. *Ultrasound* 23, 42–47. doi:10.1177/1742271X14567499

P231 An overview of academy based ultrasound training for speciality radiology registrars

Sara Riley; **Terry Humphrey**; **Ian Craven**

Leeds Teaching Hospitals NHS Trust

Background: Radiology academies were introduced with the aim of addressing the shortfall of Radiologists. The academy facilitates training over five years for an increased number of specialist trainees (ST1-5) by teaching large numbers of trainees on site to complement their clinical placements. Following the appointment of two Consultant Sonographers in 2016, we have implemented a new training programme for our ST1 to ST3 trainees accommodating increased numbers without detriment to quality.

Purpose: In our aim to produce Radiologists with high quality ultrasound skills, this poster will give an overview of the US training of the 82 trainees within our Radiology Academy. The methods and resources used to tailor the teaching to the requirements of trainees at different stages of their training will be outlined. The importance of feedback in informing teaching will be discussed.