



University of Derby enhances sonography programme with ScanTrainer



As opportunities for guided practice on real patients became scarce, the University of Derby's College of Health and Social Care was looking for an ultrasound simulation solution that would bridge this gap and enhance its postgraduate sonography programme for its students.

Departments worldwide face the pressure of ultrasound skills shortages

Guided scanning practice on real patients is a vital part of learning ultrasound skills but is also very resource heavy. As pressures on clinical departments grow the opportunities for students to practise on real patients have reduced, exacerbating the worldwide ultrasound skills shortage.

The University of Derby's College of Health and Social Care runs a postgraduate sonography programme for qualified health professionals and recognised the need for simulation as part of the training mix. Heather Venables, Senior Lecturer, at the University runs the sonography programme:

"We were training our students using patient-based practice and normal

volunteer demonstrations but, as opportunities for clinical practice became fewer, we began to realise that simulation could play a pivotal role in the success of our programme. We looked for a solution that would support students both at their early stages of learning ultrasound and through to advanced learning and assessment for more experienced practitioners."

Simulation is a pivotal part of the solution

Heather and her team set out to find the most advanced and realistic simulator on the market and following a review of the solutions available it was decided that ScanTrainer was most suited to the needs of the programme's tutors and trainees.

"One of the main hurdles students face is spatial awareness" explains Heather. "The visual feedback provided by the simultaneous display of the ultrasound images and virtual anatomy provides a unique link between transducer position, acquired images and



"ScanTrainer is far more than a straightforward simulator - it's a game changer."

“ScanTrainer is very much central to our strategy for ultrasound learning, teaching and assessment and we’ve only scratched the surface of what it can do.”

orientation - this just wasn't available from any other solution. In addition, ScanTrainer offered an incredibly realistic scanning experience as well as being supported by a wealth of outstanding learning resources.”

With the help of the MedaPhor team, Heather went on to produce a strong business case that was supported by key regional stakeholders and resulted in university support and matched funding from regional commissioners to buy the system. The University's TVS (transvaginal) and TAS (transabdominal) ScanTrainer systems were installed in November 2014 and have since been integrated successfully into the University's curriculum.

Heather comments “We very quickly embedded the system into our curriculum and it's already being used extensively as part of our programme – from trainee recruitment and induction right through to preparation for final assessment.”

ScanTrainer transforms the educational process

ScanTrainer has enabled the University to increase practice opportunities for trainees both in and out of class times. Heather explains:

“What's great about the system is how it enables trainees to ‘self-direct’ their own learning. This enables them to go at their own pace, with real-time feedback, and resources at their fingertips. We have put a booking system in place to allow students independent access to ScanTrainer in their own time. We've also increased the number of on-campus contact days to allow more time for simulated practice and demonstration during teaching hours.”

The system has transformed the way trainees are able to learn and at the

same time taking the pressure off tutors. “ScanTrainer enables trainees to learn at their own pace, with real-time feedback, and outstanding resources at their fingertips. Then, as their skills and experience grow, the complexity of tasks can be increased. As tutors, this has freed up a lot of our time, we're able to easily review trainee progress and understand areas of difficulty so we can intervene as and when necessary,” continues Heather.

“We have been impressed by the ease with which students have been able to resolve conceptual difficulties with image orientation by themselves. We've witnessed many ‘penny dropping’ moments when trainees make the link between correct transducer manipulation and on-screen appearances – which, as tutors, is fantastic for us to see.”

Looking ahead...

Looking ahead, the University plans to fully utilise ScanTrainer's cloud-based learning functionality and encourage students to use the remote access to learning resources to enable more flexible study. Heather concludes:

“ScanTrainer is already central to our strategy for ultrasound learning, teaching and assessment and we've only scratched the surface of what it can do. As we move forward, we are planning to take advantage of all its cloud benefits so we can further enhance the experience for staff and trainees. Students enrolling for the next academic year have been given early remote access to the cloud based resources to enhance their preparation for formal module delivery.”

To find out more about how ScanTrainer could help your trainees learn faster and learn better get in touch today.

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