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## Background

The Gener8 suite provides a Blended Learning Interactive Simulation with three walls of panoramic projection. These projections are interactive through gesture control and use a variety of functionality through Intuiface software. This service improvement project was designed to explore how the Gener8 suite impacts learning for Newcastle medical students. Our objectives were to create novel lessons and evaluate their effectiveness.



## Results

The evaluation was positive with 97.8% of learners agreeing the navigation of the technology was logical, consistent and efficient. 100% of learners felt the technology supported the learning objectives. Prominent themes were learners:

- **Felt engaged;**
- **Found different imaging modalities next to each other useful;**
- **Enjoyed the interactive components;**
- **Valued standing up and walking around while learning;**
- **Hoped to use the Gener8 suite more in the future.**

The only technical issue was related to gesture calibration, this has since been addressed with a recent hardware update.

## Conclusion

The Gener8 suite can be used to deliver a variety of content within undergraduate medical curriculum. The student's valuation of this modality was excellent.

We aim to continue developing lessons and simulation utilising the Gener8 suite in a sustainability plan.

## Methods

The project began with a needs analysis to establish areas of the undergraduate curriculum that may benefit from innovation. Four lessons were chosen to be created, these were delivered over 5 months with 120 Newcastle medical students.

### Labour and Complications

Covered the potential pathologies that can arise during labour utilising interactive anatomy from BioDigital.

### Assessing the Acutely Unwell Patient

During the pandemic, students had limited opportunities to gain exposure with the acutely unwell patient and this simulation recreated this in a safe environment.

### Investigation Interpretation

Learning through a range of interactive high-definition x-rays, ECG's and blood gases projected for the students to review and discuss as a group.

### Prioritisation in Resus

A new simulation that focused on non-technical skills. The learners must prioritise four acutely unwell patients and work as a team to initiate time critical interventions.

The evaluation of these lessons comprised interviews with teachers and a 10-question survey to medical students based on the validated Evaluation of Technology-Enhanced Learning Materials: Learner Perceptions' questionnaire (Ellaway & Cook, 2015).

## Sustainability

- 'Pick up and play' usability with a wall control tablet
- User friendly templates
- Gener8 troubleshooting manual
- Involving the wider educational department for content ideas
- Staff training days on content creation and lesson delivery

***"This was the most engaging of the SIM sessions – really enjoyed it. Would love to do more of the same!"***

***"Excellent experience. This has made me really enthusiastic about simulations and medical education."***

Student quotes from 'Prioritisation in resus' feedback.

## References

Ellaway, D. & Cook, R., 2015. Evaluating technology-enhanced learning: A comprehensive framework. *Medical Teacher*, Volume 37, pp. 961-970.