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NHS
Sandwell and West Birmingham
NHS Trust

# Patient safety education during COVID-19: Could Virtual Simulation replace face-to-face learning?

## Background

It is widely accepted that simulation training is an essential part of a human factors education programme, which is essential to improving safety in clinical setting. During the early 2021 COVID-19 surge, we found an increase in cancellations from both doctor and nursing faculty and candidates for simulation sessions. This was due to high infection rates, redeployment and increased clinical workload. This meant that unless we could modify our traditionally face to face training sessions, these clinical staff within our Trust would not be able to receive this crucial part of medical education.

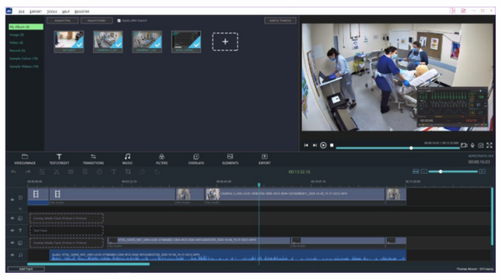
## Aim

Upon reflection, we identified that realistically, SWB trainees spend 10% of their session taking part in a scenario while the other 90% is group discussion and vicarious learning. The thought was, could we replicate the other 90% online? Could this really be considered as simulation?

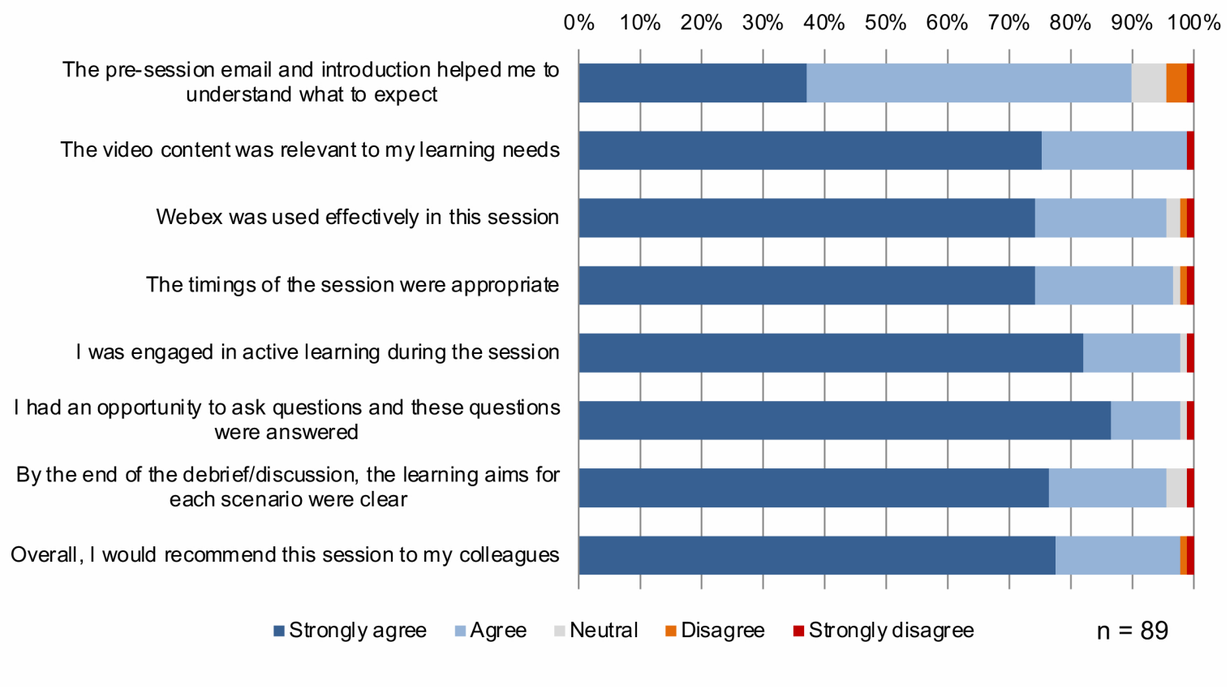

Record HD (1080p) footage over Wi-Fi

Edit in Windows Movie Maker & DaVinci Resolve

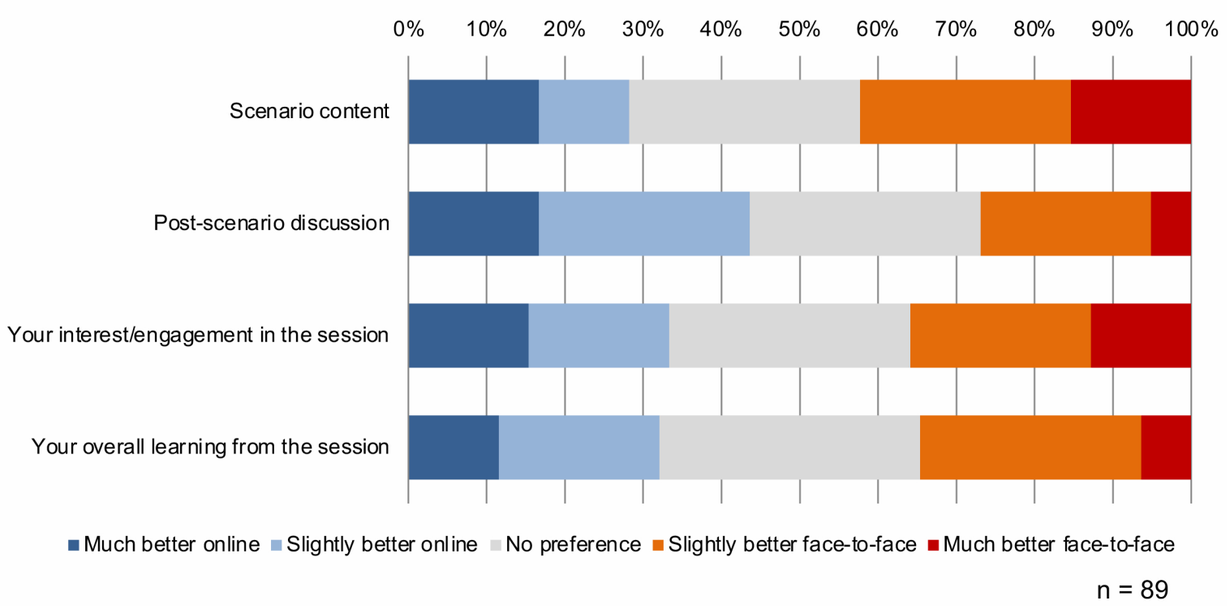

Upload to Vimeo (password-protected)



## Evaluation/Findings




*"Think back to your previous simulation session(s). Please rate each of the following aspects, comparing between online and face-to-face sessions:"*





## Action Plan

### Choosing scenarios

We decided that the best way to recreate a similar simulation setting would be to record a selection of scenarios. We had to decide scenarios that we felt would be best for encouraging vicarious learning while also including non-technical skills.

### Resources/Team

We rounded up 3-5 people to act out as candidates, patient/carers and the nurse plant. We also had the Tech and senior help roles (2-3 people) and finally a Director! In order to record the scenarios, we used Scotia's SMOTs in-situ kit (3 cameras, 1 vital signs, 1 mic and a manikin).

### Invitations

We invited candidates via Outlook Calendar requests which included a brief explanation of the need for theses sessions along with attachments containing a PDF covering expectations and ground rules along with our 'Crisis Resource Management' material. This was all to manage expectations. We then also included a Webex link to the invite.

### Delivery

We had at least 2 members of faculty to deliver these sessions; 1 lead debriefer and 1 person in the background to overlook any technical or candidate issues. We found it was important to have at least 2 faculty per session to manage the extraneous cognitive load. Each session allowed 4-8 candidates. We gathered feedback via Survey Monkey and encouraged an open room, post-session discussion for if any of the candidates felt they wanted to talk. The session would then be followed up by a post-course email containing the trainee's learning points along with any clinical guidance.

## Key Learning

- Combination of video and online debrief seems well-received, cost-effective, psychologically safe.
- A combination of simulation and media experience is helpful.
- Sessions do not need to be **fully** synchronous.
- We have needed to adapt our facilitation styles, but debriefing feels natural with practice.
- Likely an ongoing role in PG human factors programme at SWB.


## 2020-21 Sessions: Outcomes

- 122/126 Foundation doctors (97%) have had one or more human factors training sessions
- 22/23 SWB IMT doctors (+41 from West Midlands)

M. Newbould Simulation Technician
S. Evans Simulation Fellow

Department of Medical Education