

Virtual Reality Simulation in Paramedicine

DOES IT HAVE THE POTENTIAL TO CHANGE THE DIRECTION OF
PARAMEDIC TRAINING AS WE SEE IT TODAY?

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Purpose

- Identify areas of future research and development for Virtual Reality Simulation (VRS) within the prehospital setting
- What was reviewed?
 - Prehospital developments
 - Other Industry developments
 - Opportunities and limitations
- Ethics Approval
 - GU Ref No: MED/38/15/HREC



How did we get here?



Patient Safety

"Simulation, in all its incarnations, is a tremendous tool for healthcare educators, in that it allows students to achieve these goals without our patients being put at risk", Okuda et al, 2009

- Residents who had trained on simulators in advanced cardiac life support protocols, adhered more closely to those protocols/standards in actual cardiac arrest events
- Better procedural performance within the operating room by laparoscopic surgeons who trained via virtual and non virtual simulated methods

Compared to those who been trained in more traditional standard methods

Patient Safety (continued)

Bredmose et al. 2010, 24 month study with the London Helicopter Emergency Medical Service (London HEMS)

- Positive improvements across:

- motor skills;
- critical decision-making;
- scene management;
- team interactions;



Ultimately better patient care is achieved

The Curse of Distance

- Our patients
- Response Times
 - Paid vs Volunteers
- Education
 - On going
 - Skills and Procedural Development
 - Costs



Preview project

Three UK Universities

- St George;
- Edge Hill;
- Coventry;
- 3D Immersion Specialists Daden Limited



Paramedic Assessment System
Client: St George's Hospital, London

"Paper Based, Problem-Based Learning into Virtual Platforms"

Ambulance Victoria & CAE Professional Services



Virtual Pharmacy – Griffith University

"This cutting edge facility is the future of technology-driven education and will provide students with a truly immersive virtual environment"

Dr Gary Grant, Deputy Head Learning and Teaching from the School of Pharmacy.



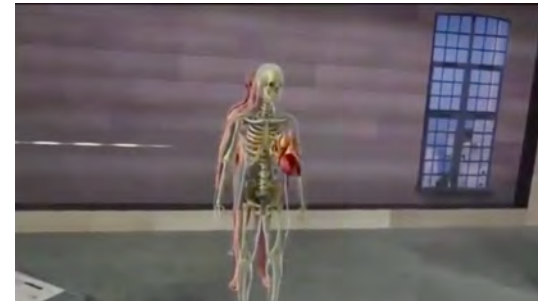
Immersive Classrooms



Immersive Classrooms (continued)

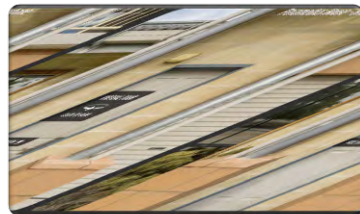


Immersive Classrooms (continued)





Virtual Canvas – Houses & Ambulances



Virtual Ambulance



Virtual House



Our Future in Paramedic Education?



Thank you.

