

# Virtual Reality for Crime Scene Investigation

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# Why VR?

- Challenges in T & L
- Enough practise?
- Time consuming
- Costly

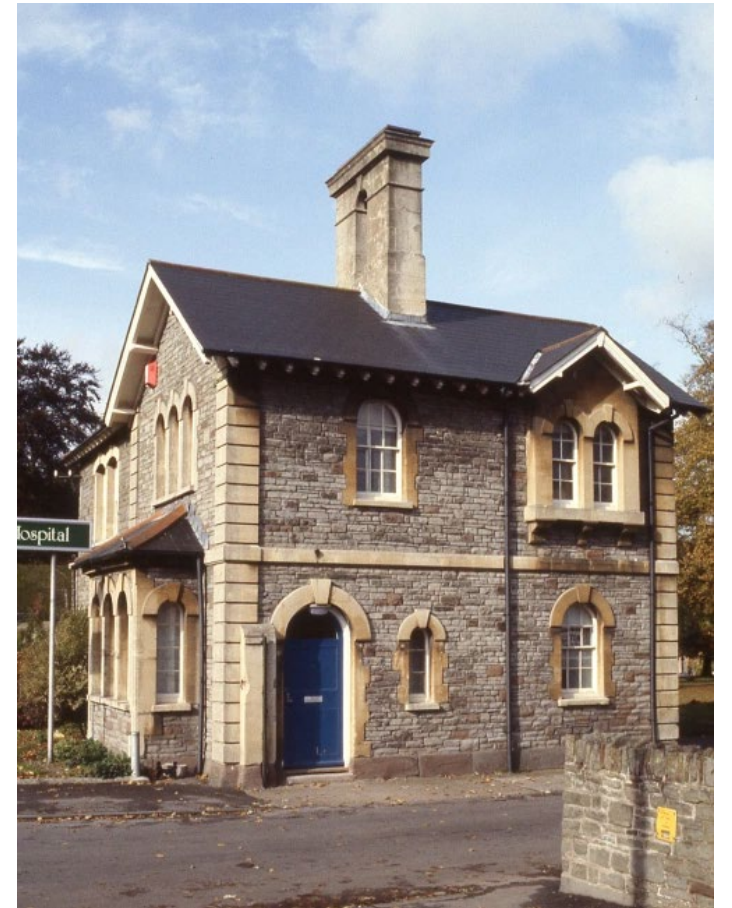


**Second Life**  
'clunky'  
Marmite



# Designing the room

- Based on the lounge in our crime scene facility
- To give familiarity



# Hardware

## OCULUS QUEST VR

> 60 FPS

> 6 DOF

> Positionally-  
tracked  
controllers



PITCHING



SURGING



ELEVATING



YAWING



ROLLING



STRAFINING

# Software

## UNITY ENGINE

> WYSIWIG

> "Free"

> C# Scripting

> C++ Runtime

> Oculus API



# Virtual Crime Scene



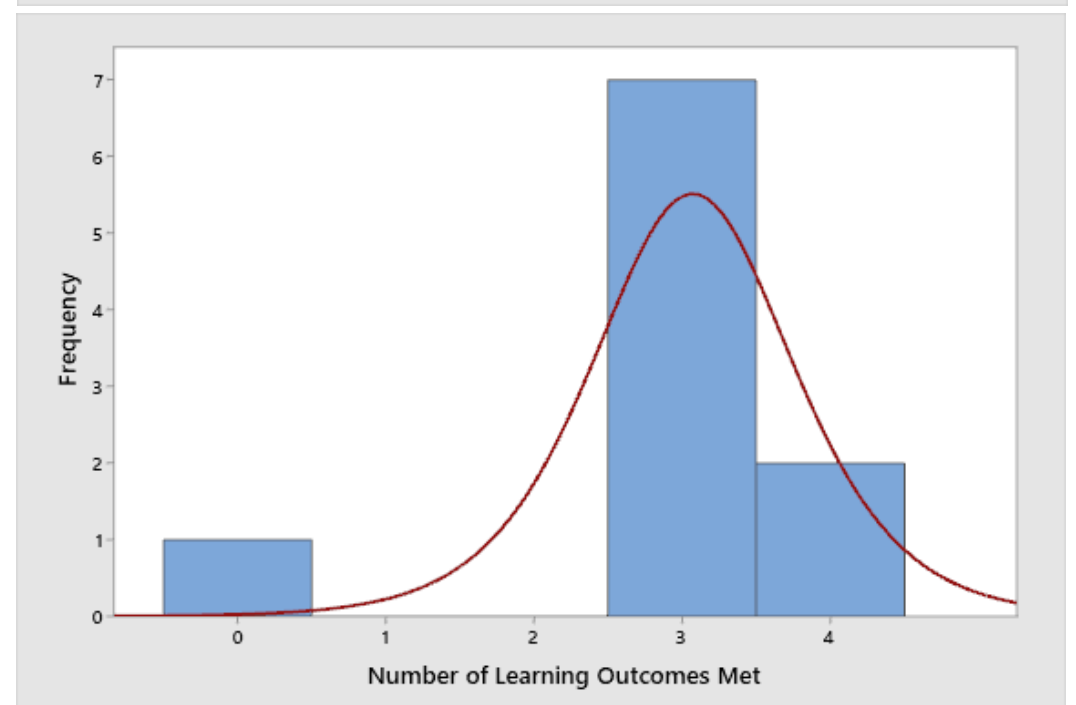
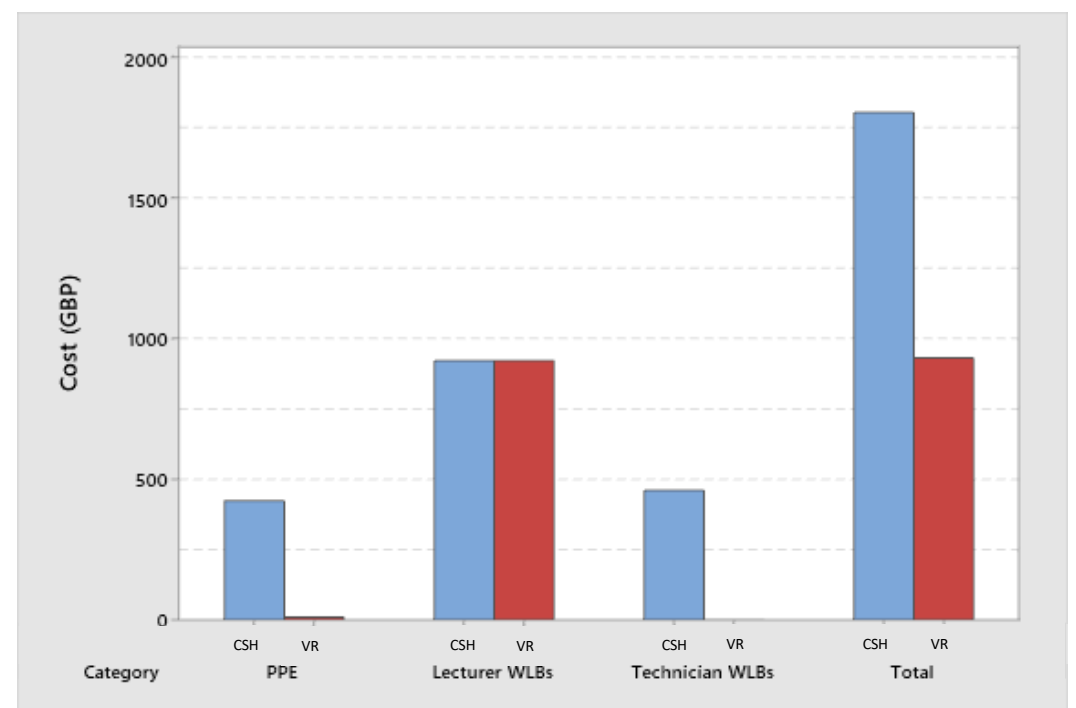
# Statistics

VR is:

- $\sim\frac{1}{2}$  price of lab practicals incl. setup (TY 2019)
- Well-tolerated and enjoyed
- Able to support satisfactory LO attainment

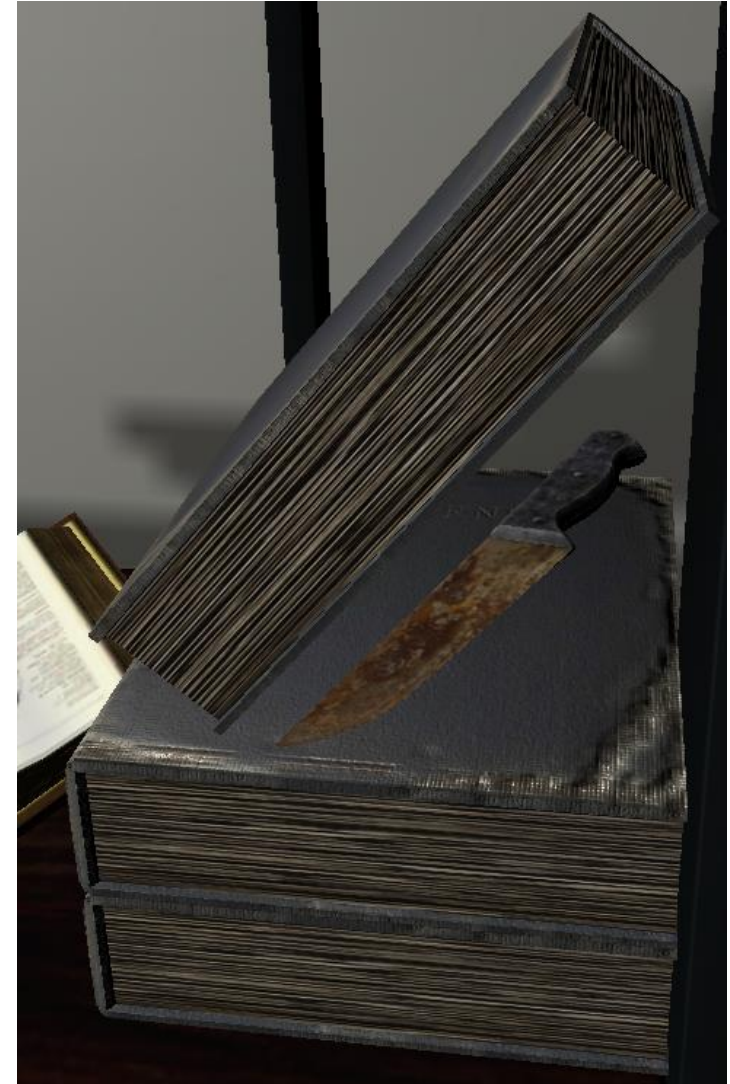
*(Upper) Cost (GBP) of VR vs lab practicals, 2019-2020  
(including initial setup costs)*

*(Lower) Histogram showing number of learning outcomes met*



# Conclusions

- VR is an effective and low-cost *adjutant* to HE courses (and will not replace practical sessions)
- Early indications that technology is good for less-able students
- Further work
  - Applications in lockdown
  - More scenarios, extra features





# Acknowledgements

- Our forensic science tech team
- Our student volunteers

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