e-BUDDI Overview

Why Distributed Simulation (DS)?

- Virtual reality simulation and e-learning applications consistently shows improvement in learning outcomes[1]

- Lightweight, portable and self-contained solution[2]

- 'Good Enough' simulation for effective training and procedural skills[2]

- Ideally suited for quick response f2f augmented <u>customised</u> healthcare training

1 Schreuder et al, Med Teacher, 2011; Cook et al, JAMA, 2011;
2 Kneebone et al, 2010

Why Game Enhanced DS?

- A balanced combination between challenge and learning

- Theory of deliberate practice with intentional repetitive training[3]

- Improve visuospatial and attention skills[4] to deal with Risks and Hazards

3 Ericsson et al, *Psychol Rev*, 1993;
4 Boot et al, *Acta Psychol (Amst)* 2008

Implementation Overview

Mapping Learning and Game Mechanics

Instructional Learning

- Storyline introduction

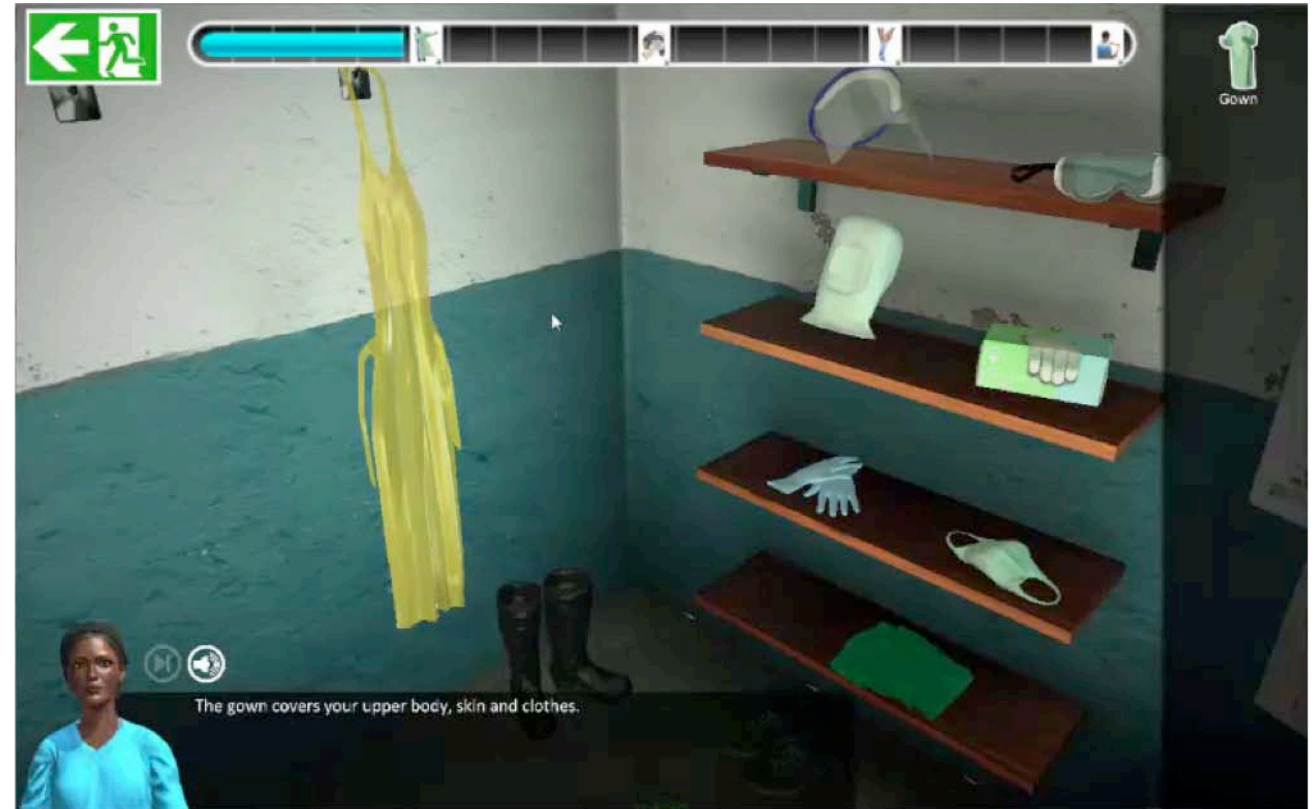- Pre-rendered Videos

- Raising Awareness

See Video Clip – SDC 2
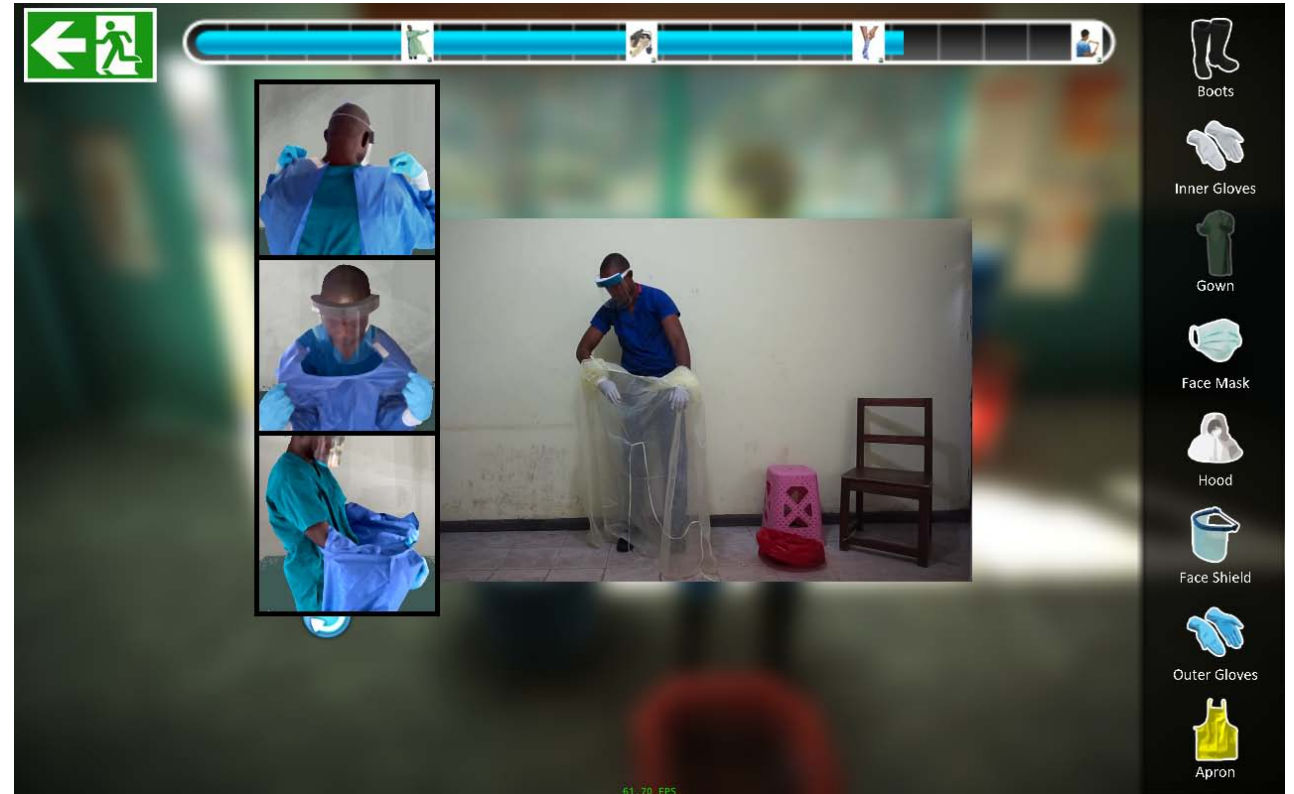
Discovery based learning

- Selection choices

- Ability to respond as per local content

- Improve Awareness
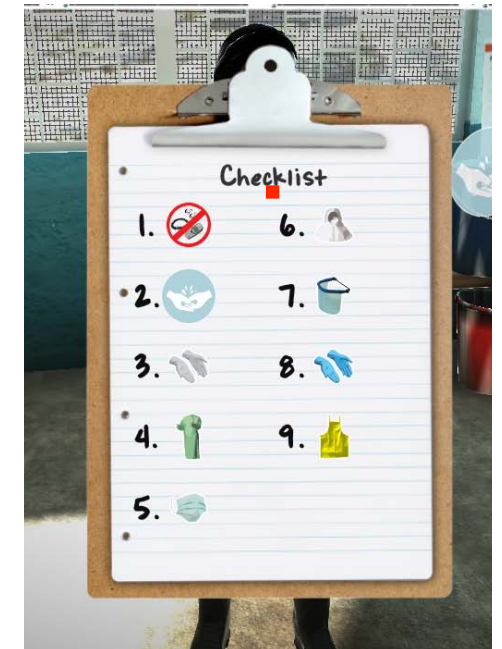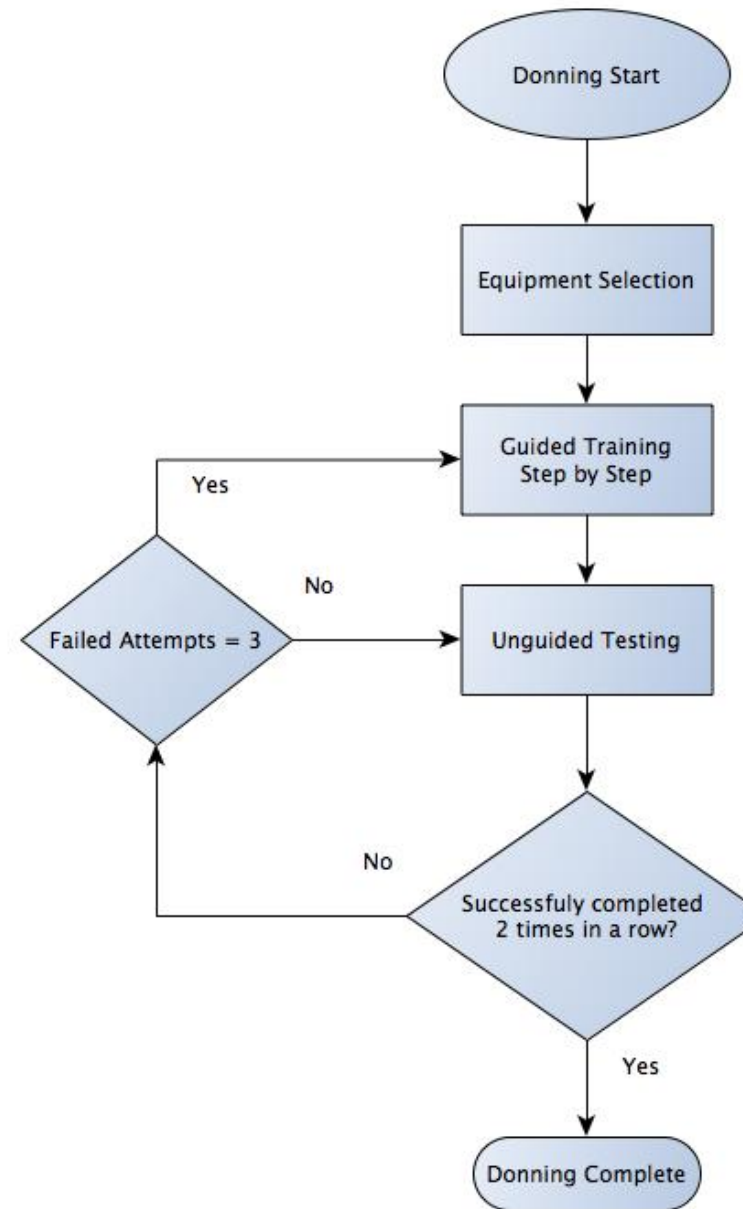

Sample Video Clip – SDC3

Guided Tutorials

- Cascading Information

- Step-by-Step

- How and Why?

See also Sample Video Clip – SDC4

Intentional Repetition

- Using Behavioral Momentum

- Multiple attempts to Progress
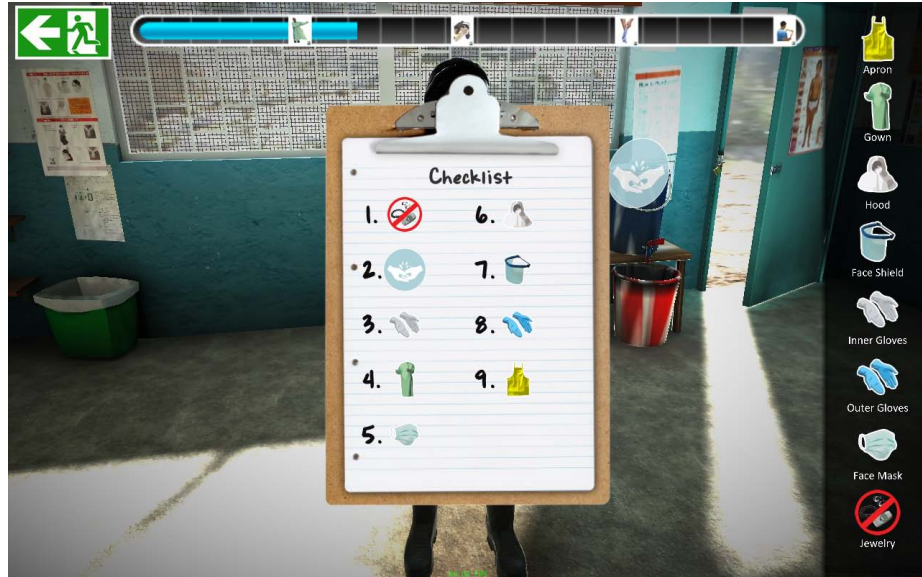
- Restart on fail and reinforcement

Problem Solving Activity

- Risk Identification and mitigation

- Hazard perception (5 random hazards)

- Capturing events and elimination

Continuous feedback

- Checklists

- Prompts

- Summary

Local Customisation

- Easy to add multiple languages

- Local Voiceovers

- Adaptability to local conditions – Battery dependence