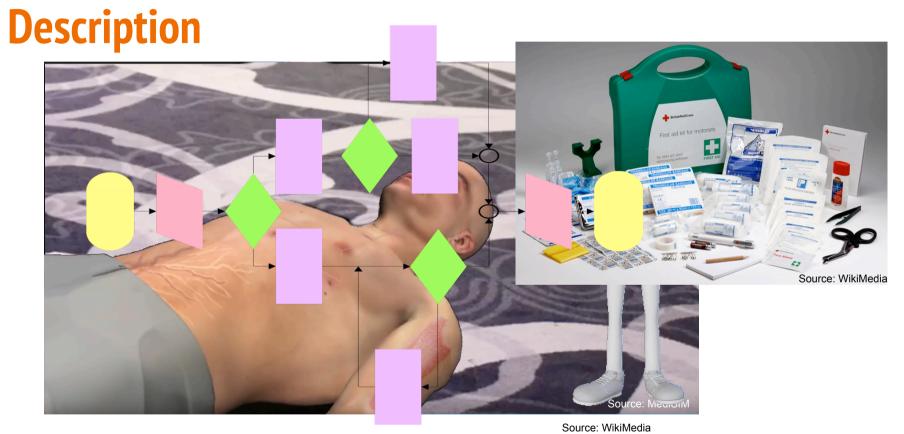
ALE - FirstAid AR training

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Context

• Nature of First Aid

- $\circ \quad \text{Set of simple actions} \to \text{Corresponding skills}$
- Need for immediate correct reaction
- Follow a script until the arrival of medical professionals (ambulance)
- Existing First aid training framework
 - A professional is present
 - Utilising physical dummy, real First aid kit (bandages, plasters, etc.)
- [Case Study] Nurses' training with AR
 - **87%** preferred AR over traditional training (n=127)
 - **81%** found AR training more authentic (n=98)



Design Choices

- Monitoring stress levels
 - Learning to regulate emotion is very important in this context
- Autotutor
 - Virtual companion
 - Feedback and affect when is it most effective?
 - Experience of learners
 - "Don't be supportive until the students need support" (252)
 - Procedural knowledge
- Crystal Island
 - Incorporation into existing course
 - Assessment summary
 - Importance of presence and engagement

References

- 1. [Case Study] Nurses' training with AR http://medicalaugmentedreality.com/2014/10/training-nurses-using-augmented-reality/
- 2. Dual Good Health VR first aid training

http://dualgoodhealth.com/

https://www.youtube.com/watch?v=6CuvyXcRV2w

3. MediSIM - Using HoloLens for patient examination training

https://

www.medisimulation.org/

https://www.youtube.com/watch?v=JGiVVObY0Ew

- 4. D'Mello, S., Lehman, B., Sullins, J., Daigle, R., Combs, R., Vogt, K., ... & Graesser, A. (2010, January). A time for emoting: When affect-sensitivity is and isn't effective at promoting deep learning. In Proceedings of Intelligent Tutoring Systems (ITS 2010) (pp. 245-254). Springer Berlin Heidelberg.
- 5. Nye, Benjamin D., Graesser, Arthur C., & Hu, Xiangen. (2014). AutoTutor and Family: A Review of 17 Years of Natural Language Tutoring. *International Journal of Artificial Intelligence in Education, 24*(4), 427-469.
- 6. Rowe, Jonathan P., Shores, Lucy R., Mott, Bradford W., & Lester, James C. (2011). Integrating Learning, Problem Solving, and Engagement in Narrative-Centered Learning Environments. *International Journal of Artificial Intelligence in Education, 21*, 115-2), p.115-133.