

What we did

We created a half day simulation session focusing on Paediatric acute care for 4th year medical students.

Aim

To increase the student’s confidence with managing acutely unwell children, in a safe environment

Content

In the session students completed two simulated scenarios utilising a “**Live.Die.Repeat.**” (LDR) model described by Sunga *et al* (1) in the teaching of emergency medicine physicians and later used by Brazil *et al* (2) for teaching medical students.

Multiple Mini-De-briefs

As opposed to conventional simulation where the single debrief takes place at the end of the scenario; LDR utilises multiple mini-debriefs within the simulation scenario, after each ‘critical action’, whether it is performed successfully or not performed. Subsequently, the students repeat the previous section in order to act on the feedback immediately.

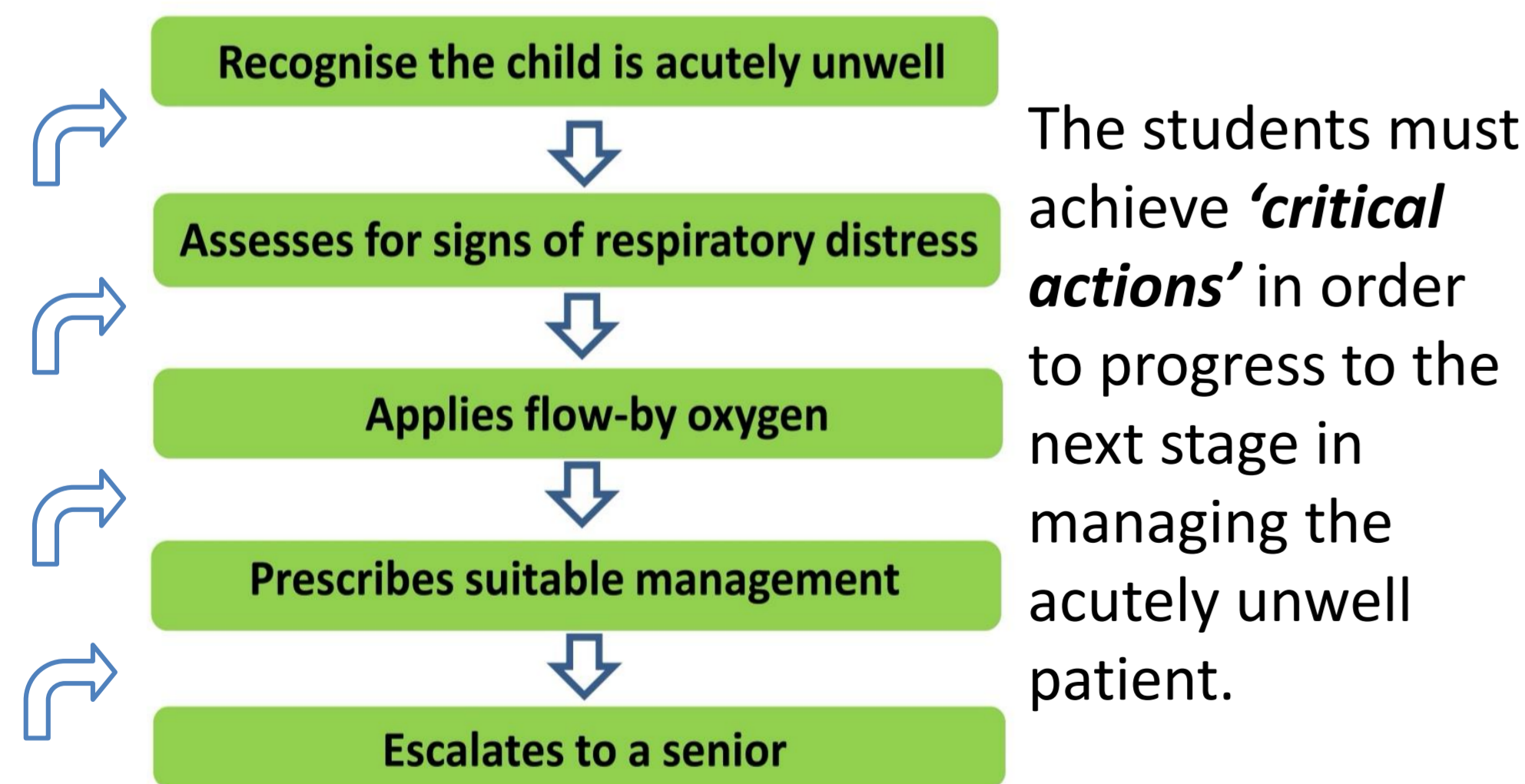
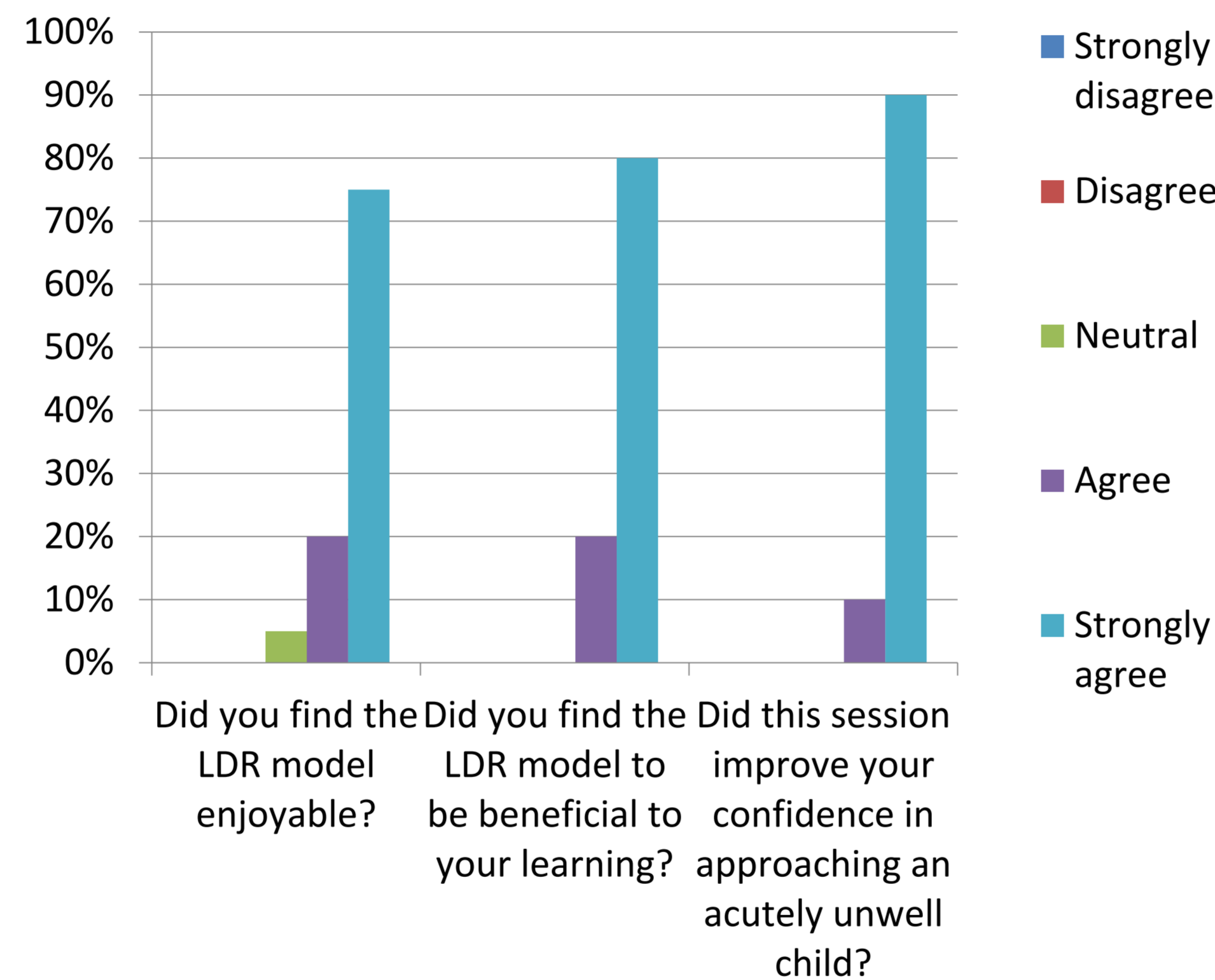


Fig 1. Critical actions for participants to complete in our group simulation

Evaluation

To evaluate the efficacy of the session we collected written feedback from the students utilising a Likert scale to assess their increased confidence with paediatric acute care. Students overall enjoyed the LDR model, the learning outcomes were adequately achieved and, importantly, they felt more confident in how to approach an acutely unwell child in the future.



“Really good to be able to repeat + improve on each section”

“It was really good to get to redo things”

“It was good to practice doing it correctly rather than having to just remember feedback”

Comments collected from student feedback

Discussion

Simulation is a form of experiential learning that offers students the chance to gain experience in a safe environment. LDR simulation can achieve the ‘active experimentation’ stage of Kolb’s learning cycle (3), where it would otherwise be difficult due to the nature of the Paediatric specialty, particularly within acute care.

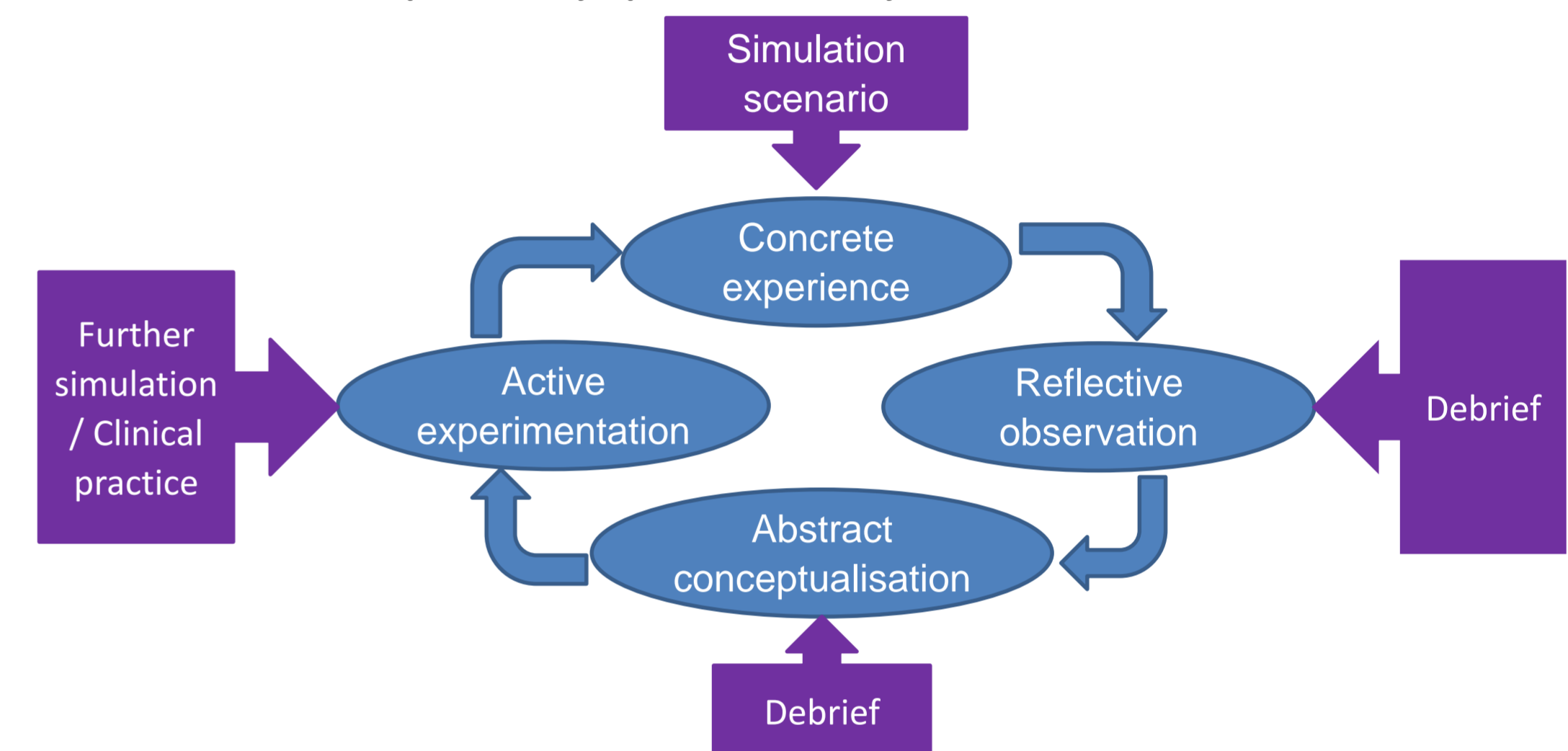


Fig 2. The stages of SBME mapped to Kolb’s experiential learning cycle. (4)

Within the use of simulation, critical learning often takes place during the debrief, rather than the simulation itself. The LDR model uses the theory of ‘**Deliberate Practice**’ (5) where repetitive practice, coupled with assessment, provides learners with the opportunity to consolidate the learning and improve confidence by the end of the scenario.

Conclusion

The LDR model provides an effective modality for improving medical student familiarity with paediatric acute care.

1. Sunga et al. Live.Die.Repeat: A novel instructional method incorporating recursive objective-based gameplay in an emergency medicine simulation curriculum. 2016. BMJ: Stel. 2: 124 – 126.

2. Brazil et al. “Live Die Repeat” simulation for medical students. 2019. BMJ Stel. 0: 0 – 3.

3. Kolb, D. Experiential learning: Experience as a source of learning and development. 1984. New Jersey, Prentice-Hall.

4. Oliveria et al. Experiential learning in nursing consultation education via clinical simulation with actors: action research. 2015. Nurse education today. 35: 50 – 54

5. Wayne, et al. Mastery Learning of Advanced Cardiac Life Support Skills by Internal Medicine Residents Using Simulation Technology and Deliberate Practice. *Journal of General Internal Medicine.* 21(3), pp.251-256.