

SHORT REPORTS ON SIMULATION INNOVATIONS
SUPPLEMENT (SRSIS)

The Simulation Launchpad course: building simulation capacity in Africa

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Introduction

The need to develop simulation capacity in Africa to improve healthcare education and delivery is urgent. Faculty development programmes, crucial elements for capacity building, are expensive to access and focus on high resource settings. South Africa offers limited simulation faculty development opportunities [1].

The Simulation Launchpad is a 2-day face-to-face faculty development course designed to fill this gap and is housed within the University of Cape Town (UCT) in South Africa. UCT presents a unique opportunity for accelerating continent-wide simulation capacity development with doctors and nurses from across Africa specialising at the university, many of whom will establish new specialties in their country. We aim to enable course graduates to champion simulation in simulation-naïve contexts and use simulation to enhance knowledge translation.

Innovation

The Simulation Launchpad is run for 16 participants by four faculties. The course was designed by five educators from paramedicine, critical care nursing and anaesthesia, representing experience in under-graduate, post-graduate and in-service programmes across simulation centres and in situ venues.

The curriculum covers an introduction to simulation and a practical approach to design, delivery and debriefing. Five meta-themes are considered core learning objectives: Justice, Equity, Diversity and Inclusion (JEDI) principles, the Basic Assumption, psychological safety, a stance of curiosity and good judgement [2,3] These are modelled by the facilitators, explicitly discussed, and visible on posters in the classroom. We acknowledge the historically complex contexts in which participants learn and work, and discuss inherent bias, including racial, cultural and healthcare hierarchies in both workshop sessions and reflections after simulation delivery.

The course aims to enable participants to return to their workplaces to run simple clinical scenarios with low-technology simulators and equipment. Theoretical content is introduced in workshop-style sessions on day 1, and experiential learning scenarios with facilitator-led reflection on day 2. The participants deliver and participate in simulations they adapt from skeleton scenarios, including debriefing utilizing the PEARLS debriefing tool [4].

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'The sliding scale' and debriefing toolbox offer cognitive aids for translating theory into practice. The 'sliding scale' is a visual tool for planning scenario design and delivery (Figure 1). The hammer (directive feedback), mirror (promoting self-reflection with advocacy-inquiry questions) and feather (encouraging learner self-assessment or peer teaching and feedback) assist learners with integrating these techniques during debriefing. 'Simulation Bingo' gamifies the introduction of new concepts. The digital course manual and course WhatsApp group provide resources and support for ongoing learning.

Evaluation

The faculty present relevant, de-identified delegate demographics and themes from course feedback and faculty reflections.

Outcomes

After 2 years and seven courses, the course has produced 92 graduates from nine African countries (Figure 2).

Despite our comparatively low course cost (approximately USD175), we have needed to offer 24 scholarships in partnership

with the African Paediatric Fellowship Programme, a healthcare development programme, to improve accessibility for attendees. After attending our course, paediatric critical care nurses and doctors are establishing simulation programmes in Malawi, Nigeria and Namibia.

For many of the participants, the course was their first experience of a structured simulation scenario, with a pre-brief and debrief, and their first exposure to tools such as pause-and-perfect and confederates. Facilitating and participating in scenarios provided attendees with an opportunity to translate theory into practice, and the experience of reflecting after each scenario concluded was highly valued. The debriefing structure, formulating advocacy-inquiry dialogue and maintaining a stance of curiosity were consistently noted by participants as both transformational and challenging.

The accelerated learning from simulation novice through theoretical learning into practice is a challenge for participants, and the resultant emotional strain requires close vigilance. As faculty, we have been challenged by managing participant conflict related to racial, cultural, and healthcare hierarchies and biases. The faculty model inclusion and diversity, and invite participants to seek

Figure 1: The 'sliding scale' visual tool for simulation design and delivery workshop session.

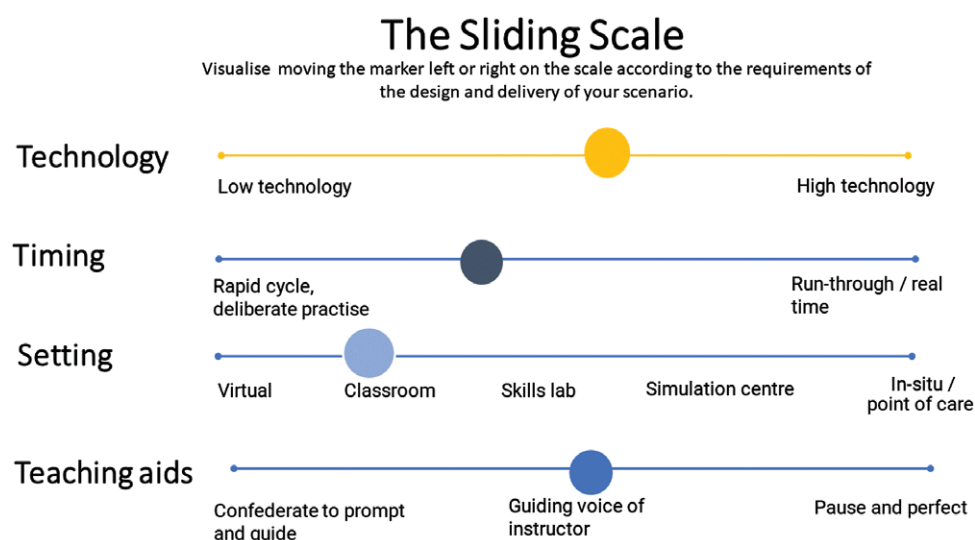
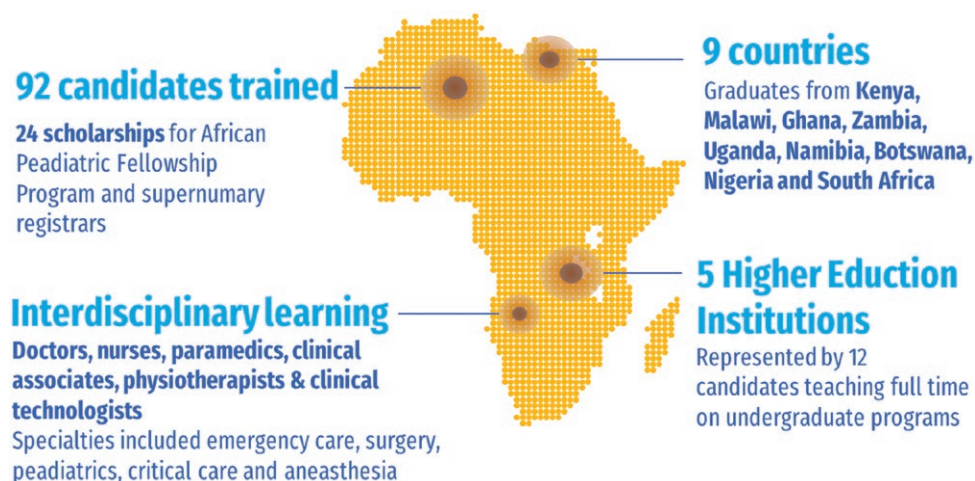


Figure 2: Simulation Launchpad course graduates (2022–2023).



support from us. We believe our high faculty to participant ratio, kept at a maximum of 1:4, is a strength.

We are consulting with allied health course graduates to adapt the course to be more inclusive of their learning needs.

Looking to the future

A programme evaluation of the Simulation Launchpad is ongoing to inform future course development and explore graduates' post-course activities. Two graduates have been developed as the first new course faculty. We are actively seeking funding to expand the course across South Africa, and to support faculty development across Africa.

The African Simulation Network, established by the course faculty and rooted in collaboration and co-creation, has established country chapters in 22 African countries to connect and support simulation educators across the continent. The network provides a larger community for course graduates, who contribute richly.

The course manual is in development to be published as an open access handbook, showcasing contextual examples from African Simulation Network collaborators.

The Simulation Launchpad provides context specific learning for simulation-naïve healthcare workers that enables them to seed simulation programmes with limited resources and support. We are excited by the challenges and opportunities of expanding our impact.

Declarations

Authors' contributions

All authors contributed to the design and delivery of the course, and jointly prepared the manuscript.

Funding

JPR is funded by a South African Medical Research Council Mid-Career Scientist Award. This research received no funding.

Availability of data and materials

Data contains no identifying features and can be made available on request.

Ethical approval

This project did not require ethical approval as we present faculty reflections and course data.

Competing interests

The authors have no declarations.

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