



How did this interprofessional collaboration come about?

- IN 2018, our expertise was sought by the Australian aviation partners to research and improve their workplace-based and simulation-based education
- We suggested a model involving an 'interdisciplinary exchange' with a compare and contrast of education and training in healthcare and aviation

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- Dr Lauren Saunders and Dr Justin Tse UniMelb St Vincent's Clinical School
 - Supervisors and trainees from aviation partner and St Vincent's Hospital



Observation of simulation-based education in aviation



Taking off at
Auckland airport
(virtually)

Domains of learning and teaching

- 01 Familiarisation with the aeroplane and air experience 7
- 02 Preparation for flight 8
- 03 Taxiing 9
- 04 Operation of controls 11
- 05 Straight and level flight 16
- 06 Climbing 19
- 07 Descending 22
- 08 Turning 25
- 09 Stalling 32
- 10 Sideslipping 36
- 11 Take-off 38
- 12 Approach and landing 43
- 13 Spins and spirals 52
- 14 First solo 57
- 15 Emergency and special procedures 58
- 16 Pilot navigation 64
- 17 Instrument flying night 72
- 18 Night flying 75



Australian Government
Civil Aviation Safety Authority

Flight Instructor Manual
AEROPLANE

Train for how you play (and train for how you rarely play)

Engine on fire

Icy runway

Terrorism

Heart attack of co-pilot

Turbulence

Birds in engine



Outcome

EK Molloy

Melb-Brisbane economy flight the following week



Medical Education

- Aviation partners observed:
- EXCITE Clinical Supervision one-day short course for healthcare practitioners working within the Victorian Comprehensive Cancer Centre (VCCC)
- Clinical supervision
- Feedback
- Workplace-based assessment
- Working with the underperforming learner

St Vincent's Clinical School

- Neuroradiology meeting – clinical case discussion with review of imaging
- Clinical Meeting – Neurology registrars present two cases with patients present
- Ward Round – consultant-led clinical round
- Code Stroke Simulation – teaching session to train interprofessional stroke team, including briefing and debriefing



Cardiac Surgery (real time)

A complex case (cardiac valve replacement) with two consultant cardiac surgeons, two consultant anaesthetists, their trainees, a cardiologist, radiologist, 8 nurses. **And two observers.**



Outcomes

1. Methodology served to highlight the merits of working with others from different disciplines (relatable challenges, and “making the familiar strange”). The educational benefits of looking outwards and inwards in order to advance practice.
2. The importance of developing technical and ‘non-technical’ skills e.g communication, team work, decision-making, and how incentives and assessment reinforces what the institution, or profession, values.
3. The need for simulation-based education to improve practice in high stakes settings.
4. Identification of ‘pedagogically rich activities’ in the workplace (hot spots) as well as cold spots where cognitive load prohibits active teaching.
5. The power of briefing and feedback (not a ‘non-technical skill’ - highly technical).

What’s next?

- Flight deck observations
- Full day interdisciplinary workshop to synthesise observations across the exchange and build recommendations (NB co-constructed) for client in aviation
- Potential for Phase 2 Consultation (refine sim-based and workplace-based education, and ‘faculty development’ of pilot trainers)
- Potential commercialization of the model “Building high performing teams” or “Workplace teaching and supervision” Participants could include aviation, healthcare partners, emergency services etc. Model could be a stand-alone short course, or an embedded activity within Masters or Specialist Certificate in Leadership (online and experiential component to enable delivery at scale)
- Additional long-term benefits include building networks across sectors, MDHS University of Melbourne is the go-to for consultation and research on workplace learning, enhancing learning cultures, assessment of professional practice etc.

Questions

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