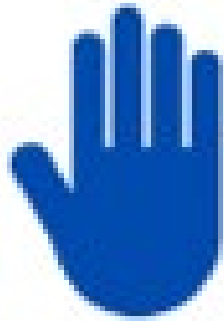




RCSI
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Centre of Excellence



SimPRENA

26th of Nov 2025

Prof Claire Condron PhD MBA
Director of Simulation Education





“

Never the
first time
on a patient

Medical Simulation 30+ Years

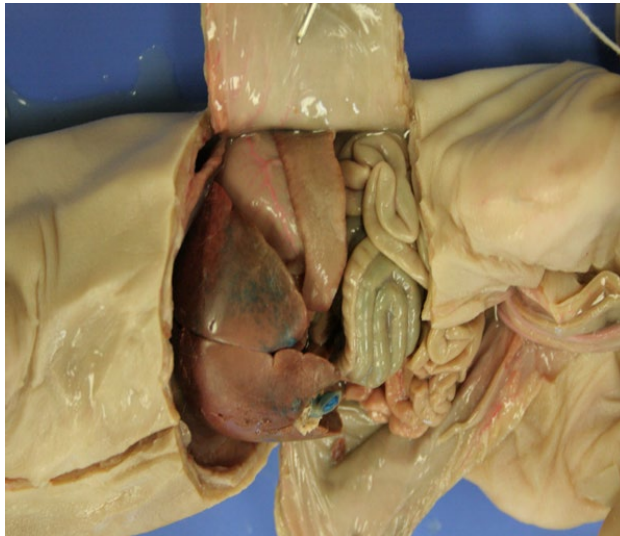


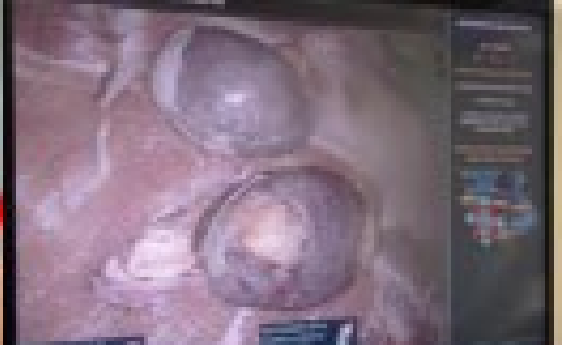
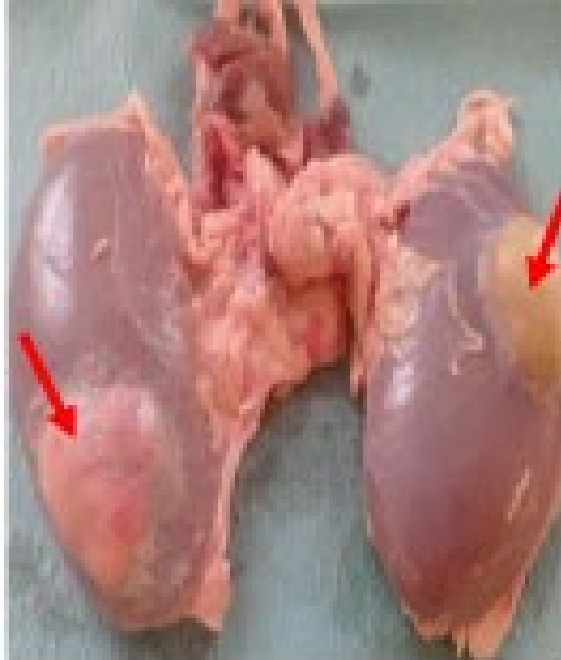
December 1994

Immune Function in Patients Undergoing Open vs Laparoscopic Cholecystectomy

H. Paul Redmond, MCh, FRCSI; R. William G. Watson, BSc; Timothy Houghton, MB; Claire Condron, BSc; R. Gordon K. Watson, ChM, FRCSI; David Bouchier-Hayes, MCh, FRCSI

Arch Surg. 1994;129(12):1240-1246. doi:10.1001/archsurg.1994.01420360030003





Journal of Robotic Surgery (2024) 18:181
<https://doi.org/10.1007/s11791-024-01807-2>

BRIEF REPORT

Design and utilisation of a novel, high-fidelity, low-cost, hybrid-tissue simulation model to facilitate training in robot-assisted partial nephrectomy

Stefanie M. Croghan^{1,2}  · Miroslav Voborsky³ · Adam F. Roch² · Claire Condon² · Jena A. O'Keefe² · Barry B. McGuire^{1,2}

▶ J Robot Surg. 2024 Nov 5;18(1):181. doi: 10.1007/s11791-024-02151-x.

A novel low-cost high-fidelity porcine model of liver metastases for simulation training in robotic parenchyma-preserving liver resection

R M O'Connell¹, S Horne², D A O'Keefe³, N Murphy², M Voborsky³, C Condon², C A Fleming^{2,4}, J B Connolly², B B McGuire^{1,2}

RCSI Early adaptors to Simulation

First High-fidelity Human patient simulator in Ireland



Year 2000



3300m² opened in 2017



6000 + simulation training sessions annually



Undergraduate, Postgraduate and Continual Professional Development

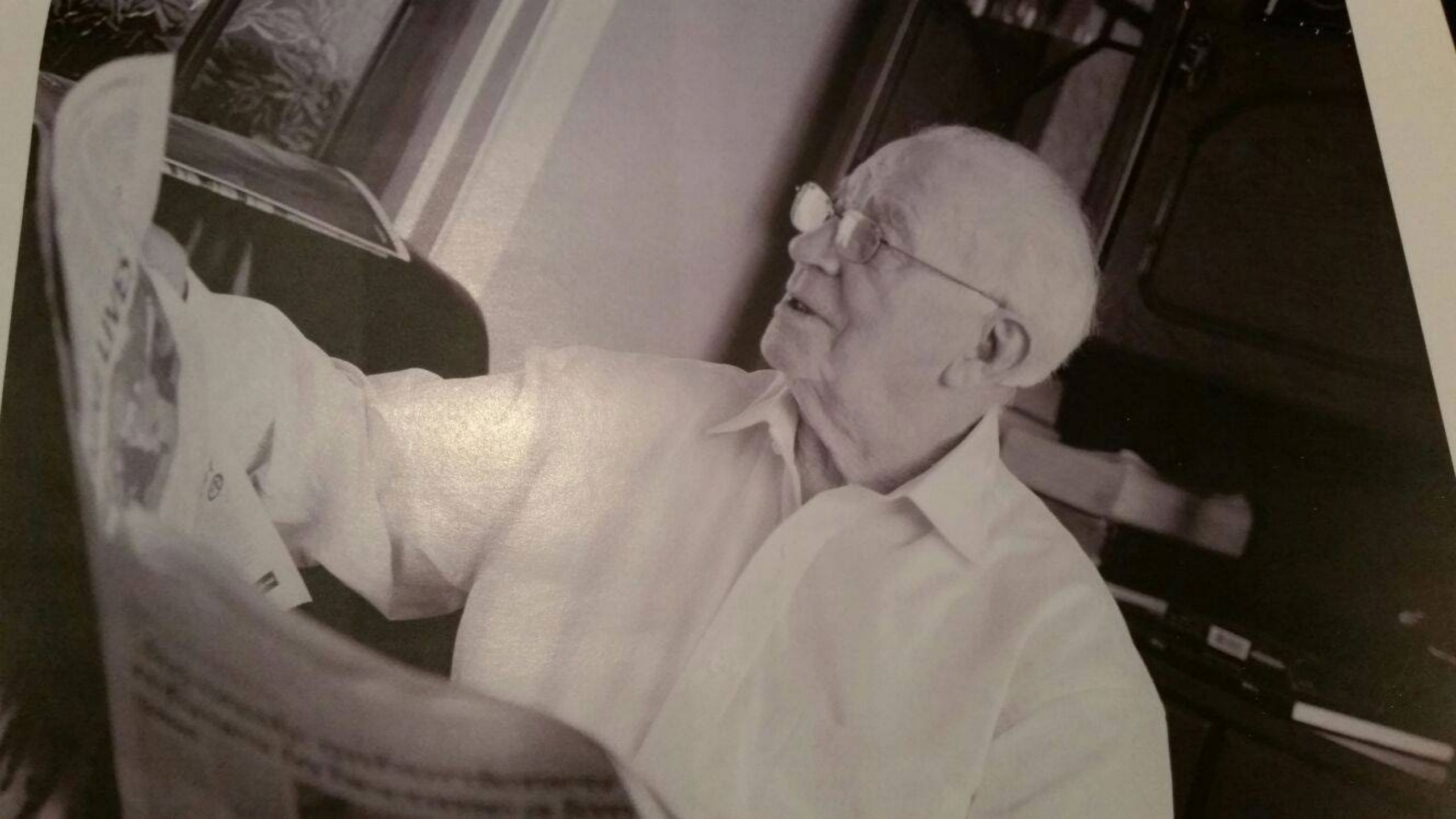


Multidisciplinary engagement , surgery medicine pharmacy nursing physiotherapy, physician associate, paramedic



Longitudinal faculty development



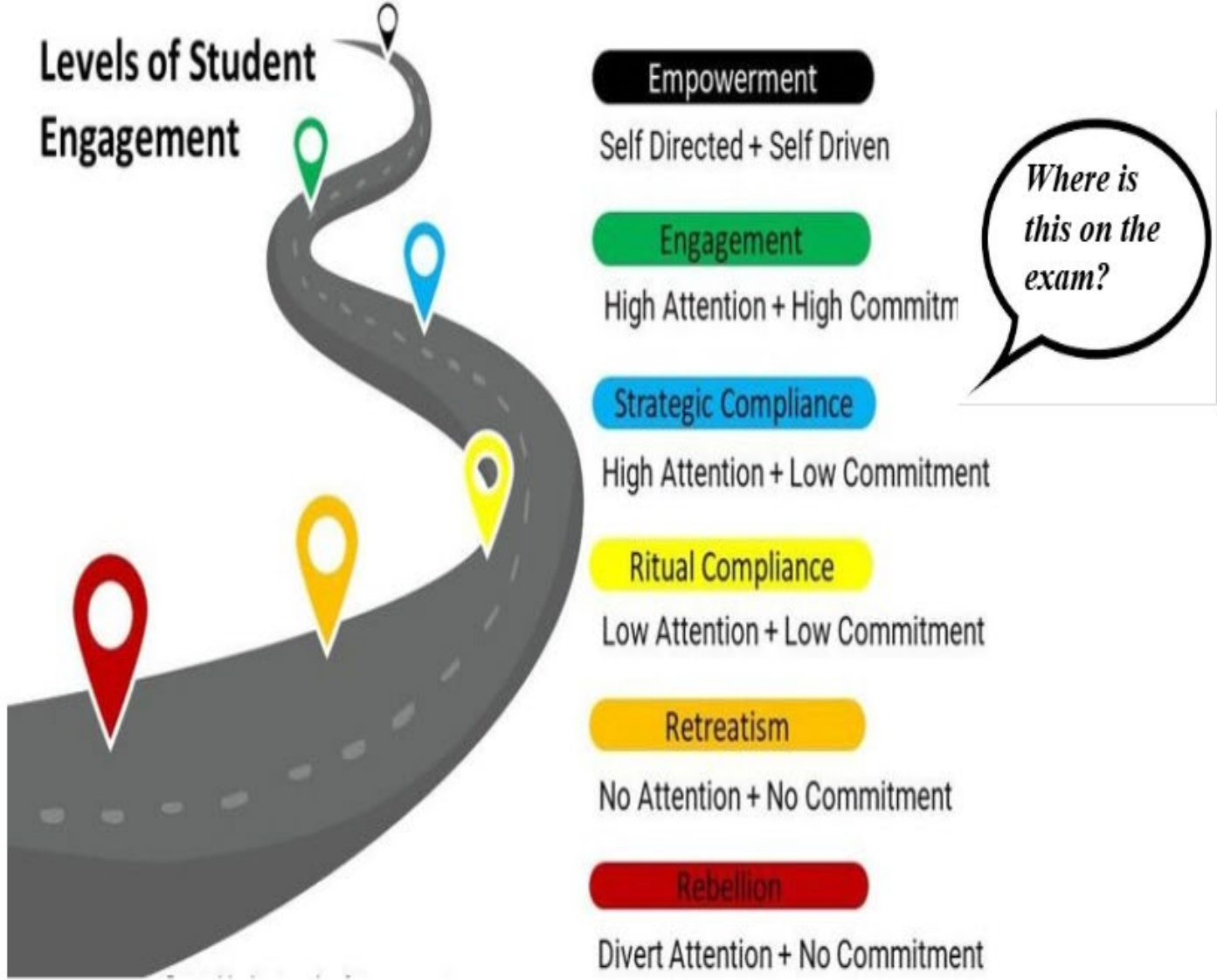


*Learning does not occur automatically by
participating in simulations training,*

It has to be designed for purposively ^{1,2}

- 1 Dieckmann, P. 2009. "Simulation Setting for Learning in Acute Medical Care." In *Using Simulations for Education, Training and Research*. Vol. 3., edited by P. Dieckmann, 40–138. Berlin: Pabst Science.
- 2 Hopwood, N., D. Rooney, D. Boud, and M. Kelly. 2016. "Simulation in Higher Education: A Sociomaterial View." *Educational Philosophy Theory* 48 (2): 165–178.

Start with Learning Theory



Curriculum Development



what is taught

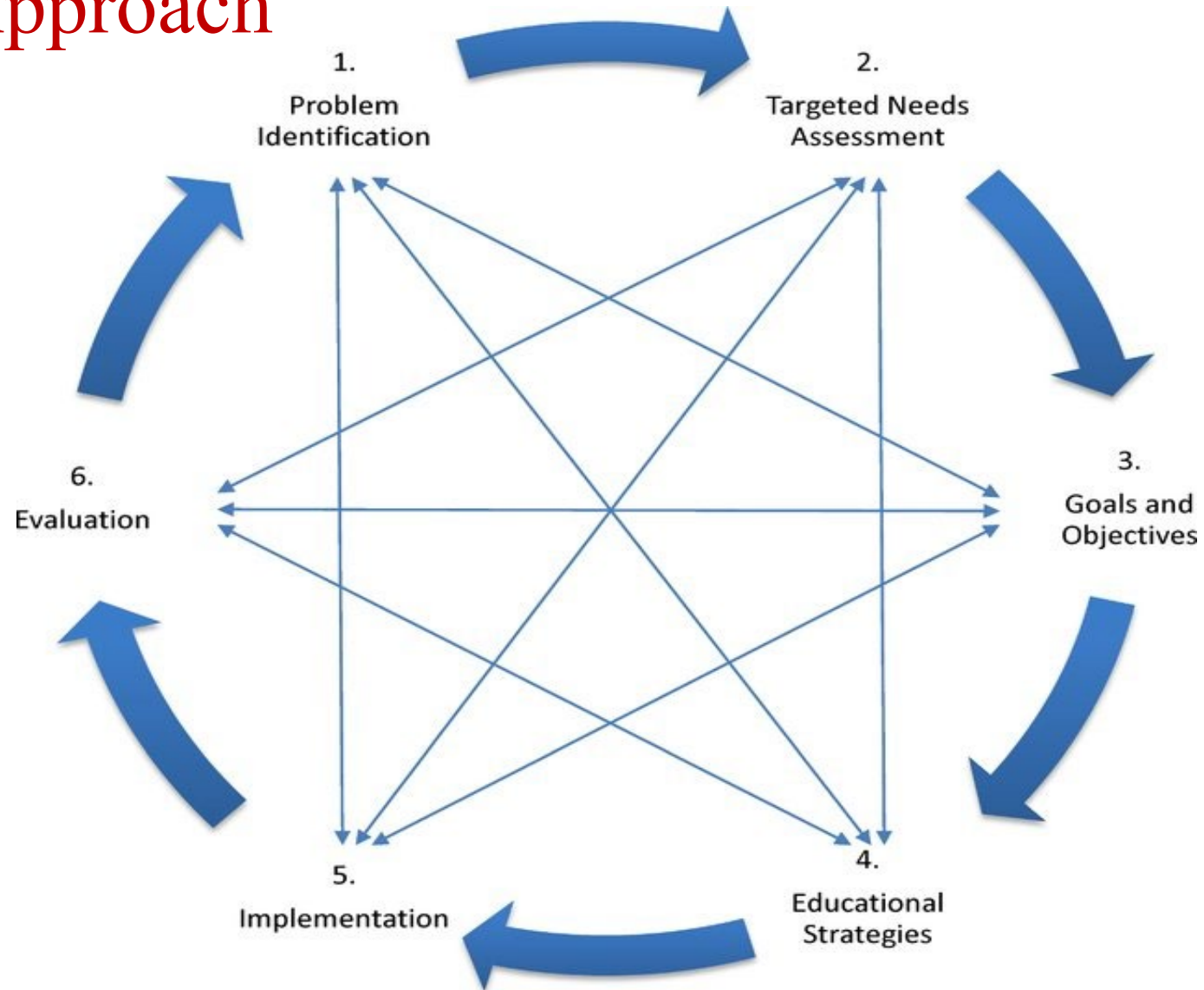
Instructional Design



**how instruction
is delivered.**



Curriculum Development: Kerns 6 Step Approach



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1: Needs Assessment

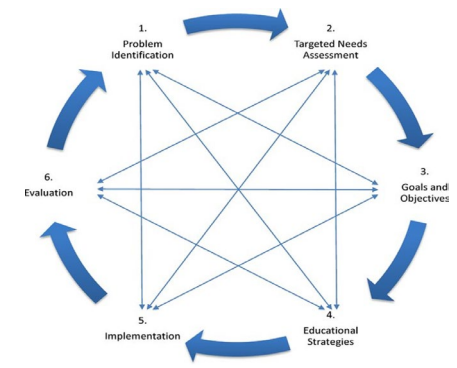
Clear and comprehensive definition of the problem

- Whom does it affect?
- What does it affect?
- Why does it matter?

Current Approach

- What is currently being done?
- What factors affect the problem?
 - Issues in the work environment
 - New developments/ technology

Problem Identification



2: Targeted Needs Analysis Needs of *your particular learner group*

Gather Expert Consensus

Structured process to gather and synthesise opinions from subject matter experts



RESEARCH ARTICLE

Consensus on core competencies for simulation training in ultrasound-guided renal biopsy

Andrea J. Doyle^{1*}, Colin P. Cantwell², Claire Mulhall¹, Richard Arnett³,
Claire M. Condon¹

1 RCSI SIM Centre for Simulation Education and Research, RCSI University of Medicine and Health Sciences, Dublin, Ireland, **2** St Vincent's Healthcare Group and UCD college of Health and Agricultural sciences, Dublin, Ireland, **3** Quality Enhancement Office & Health Professions Education Centre, RCSI University of Medicine and Health Sciences, Dublin, Ireland

Roche et al. *BMC Medical Education* (2025) 25:328
<https://doi.org/10.1186/s12909-025-06922-4>

BMC Medical Education

RESEARCH

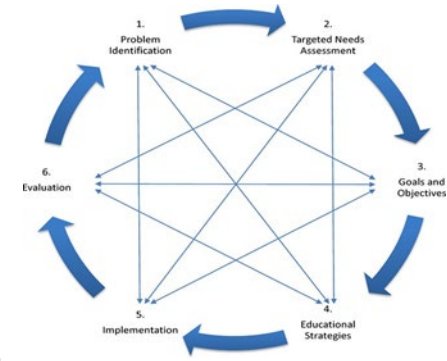
Open Access



A Delphi-based needs assessment to identify and prioritise procedural skills through consensus for simulation-based learning in neurosurgery

Adam F. Roche^{1*}, Dara O. Kavanagh², Darach Crimmins³, Vincent Healy³, Gulam Zilani⁴, Lars Konge⁵,
Letzi Joy Nayahangan⁵, Danyal Z. Khan⁶, Daniel Murray⁷, Javier Francisco Cuellar⁸, Caltriona Cahill⁹,
Niamh Murphy¹ and Claire M. Condon¹

3: Goals and Objectives – S.M.A.R.T. learning outcomes



Three Learning Domains



Cognitive Domain = Knowledge
understanding, analysing, reasoning,
decision-making.

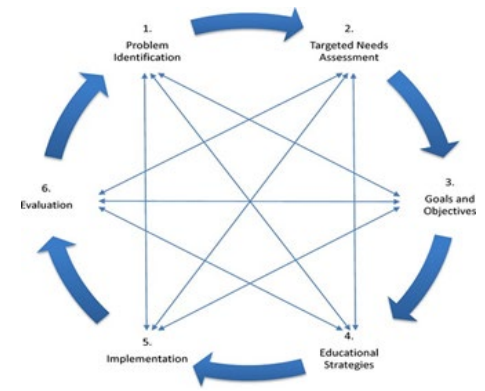
Psychomotor Domain = Hands-on Skills
physical actions, coordination, movement,
and practical procedures.

Affective Domain = Attitude
emotions, values, interpersonal behaviour,
professionalism, communication tone,
teamwork, empathy.

4: Educational Strategies Selecting Simulation Methods

Align methods to learning objectives

- Cognitive
- Psychomotor
- Affective



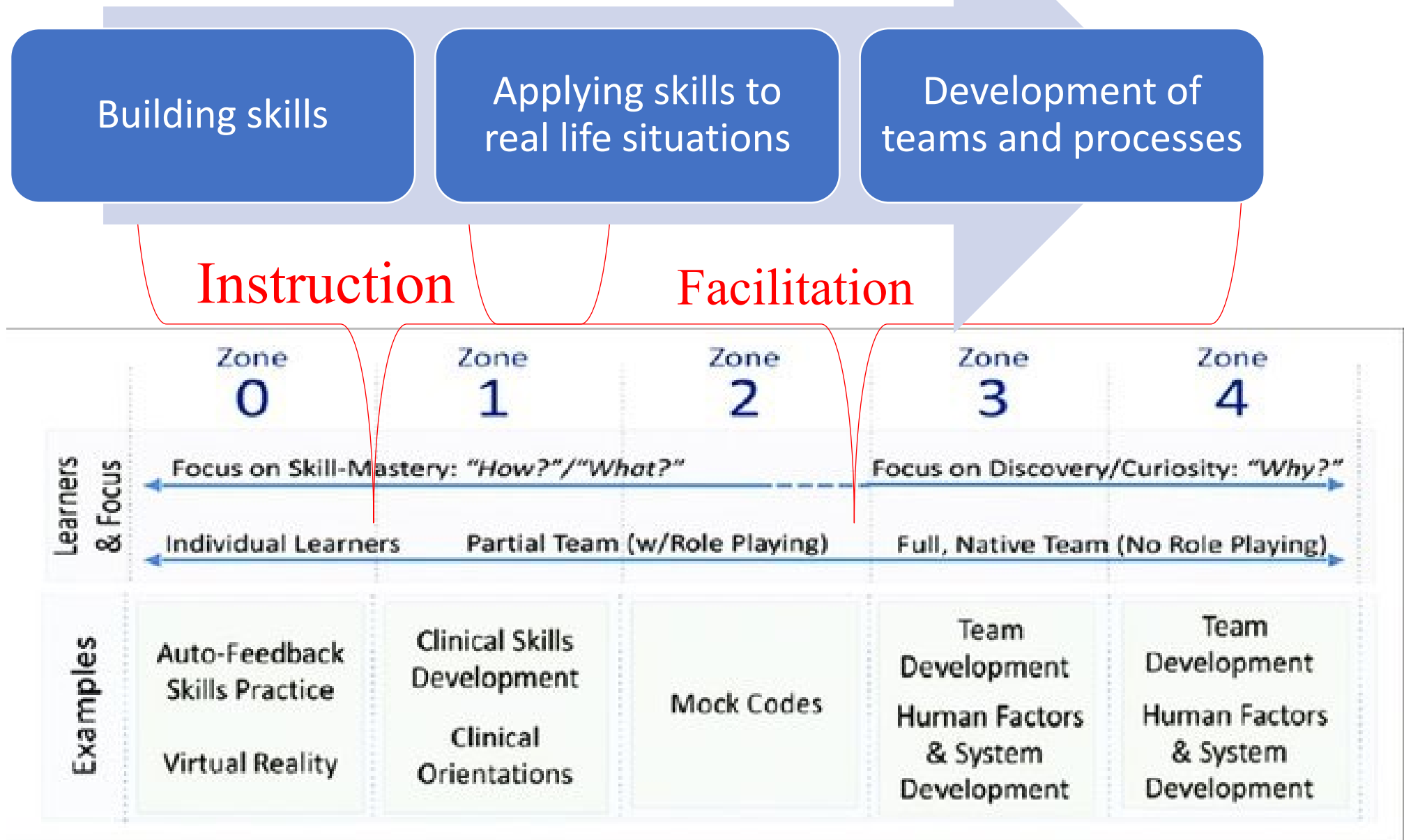
Task Trainers

Simulated
participants

Manikins



Sim Zones



Roussin, C et al (2017) SimZones: Academic Medicine 92(8):p 1114-1120, 2017.



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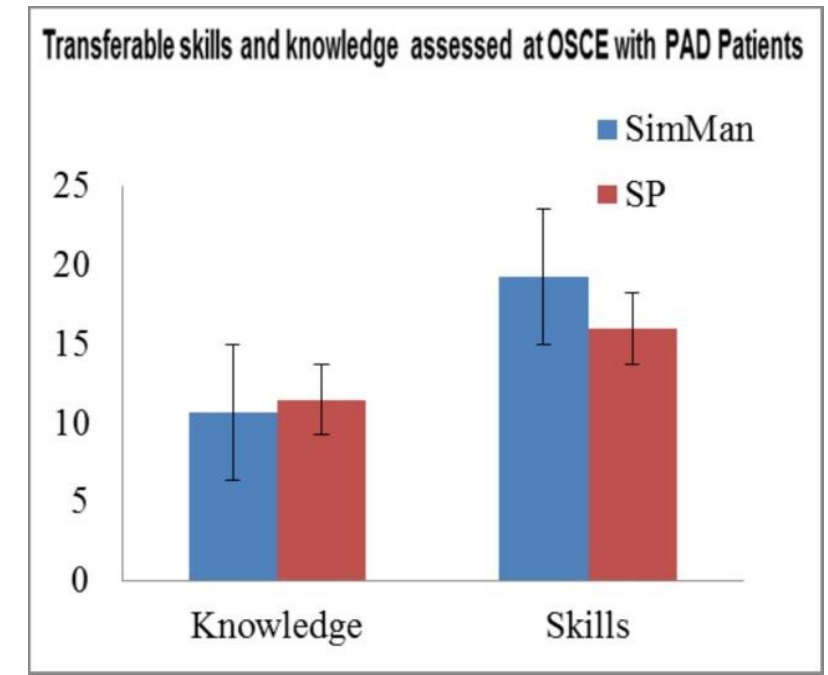
Align Simulation Methods with Learning Goals



► BMJ Simul Technol Enhanc Learn. 2018 Nov 29;5(1):49–51. doi: [10.1136/bmjstel-2017-000200](https://doi.org/10.1136/bmjstel-2017-000200) [↗](#)

Evaluation of simulation methods for teaching peripheral arterial examination to medical students

[Syed Ali Naqi](#)¹, [Abdel Monim Salih](#)¹, [Anthony Hoban](#)¹, [Firas Ayoub](#)¹, [Michael Quirke](#)¹, [Arnold D K Hill](#)¹, [Claire Condron](#)¹



"I can perfect the technique or the maneuvers on friends and family and don't have to interact professionally with them but doing the examination on a simulated patient requires the added skill of interacting with and talking to an unknown person"

"Taking a femoral pulse is an intimate procedure and whilst trying to learn the physical examination technique, thinking about the patients' discomfort is off putting."

4: Educational Strategies

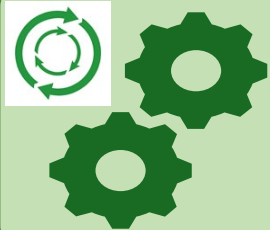
- foster the transfer of skills

- Strategically combine and align simulation formats
- Emphasize whole-task practice
- Optimise Cognitive load
- Time on task - repeated practice



Variation

Non recurrent tasks
Construct cognitive schemas



Repetition

Recurrent tasks
Schema automation

Concept of Fidelity

3 categories

- Environmental
- Equipment
- Psychological







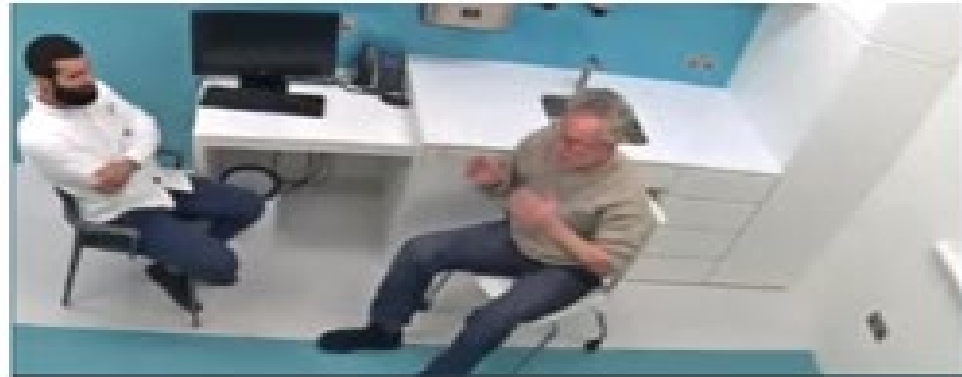
2012



2025

Simulated Patients

Patients and the Public as educators



THE CLINICAL TEACHER

SIMULATION | [Open Access](#) |

Their OSCE, not your Oscar: Simulated Patients' Perspectives

Clare Sullivan , Claire M. Condron, Laura O'Connor, Teresa Pawlikowska, James M. Murray

Sullivan et al. *Advances in Simulation* (2024) 9:10
<https://doi.org/10.1186/s41377-024-00282-7>

Advances in Simulation

RESEARCH

Open Access

A comparative analysis of student, educator, and simulated parent ratings of video-recorded medical student consultations in pediatrics

Clare C. Sullivan^{1*} , Daire M. O'Leary², Fiona M. Boland³, Claire M. Condron¹, Claire M. Mulholl¹ and Walter J. Eppich^{1,4}

Medical Teacher
Volume 46, 2024 - Issue 2

BEME Guide

Training simulated participants for role portrayal and feedback practices in communication skills training: A BEME scoping review: BEME Guide No. 86

Andrea J. Doyle , Clare Sullivan , Michelle O'Toole , Anna Tjin , Anastasiya Simicova, Nadine Collins, Paul Murphy, Michael J. Anderson, Claire Mulholl , Claire Condron, Debra Nestel, Robert MacAulay, Nancy McNaughton, Frank Coffey & Walter Eppich



Moving to Wearable Technology

➤ [Adv Simul \(Lond\).](#) 2024 Oct 1;9(1):40. doi: 10.1186/s41077-024-00314-2.


Effectiveness of hybrid simulation training on medical student performance in whole-task consultation of cardiac patients: The ASSIMILATE EXCELLENCE randomized waitlist-controlled trial

Michael Daly ^{1 2 3}, Claire Mulhall ⁴, James O'Neill ^{4 5 6}, Walter Eppich ^{4 7}, Jonathan Shpigelman ⁵, Caitriona Cahir ⁸, Daniel Fraughen ⁵, Enda McElduff ⁵, Catherine Uhomoibhi ⁵, Claire Condron ⁴



SHORT REPORT

Developing a clamshell thoracotomy training model to support hybrid teaching in simulation-based education

Adam F ROCHE ¹, Miroslav VOBORSKY,¹ Victoria MEIGHAN,² Gerard O'CONNOR,³ Walter J EPPICH⁴ and Claire M CONDRON¹



Future directions

Virtual Reality

Augmented Reality

AI-Enhanced Adaptive Training

Artificial intelligence enabling personalized learning experiences that adjust in real time.

Collaborative Simulations

Multi-user simulations enhancing teamwork training and decision making in complex scenarios.

Anywhere, Anytime Training Access

Cloud platforms and portable devices will democratize access to immersive simulations globally.



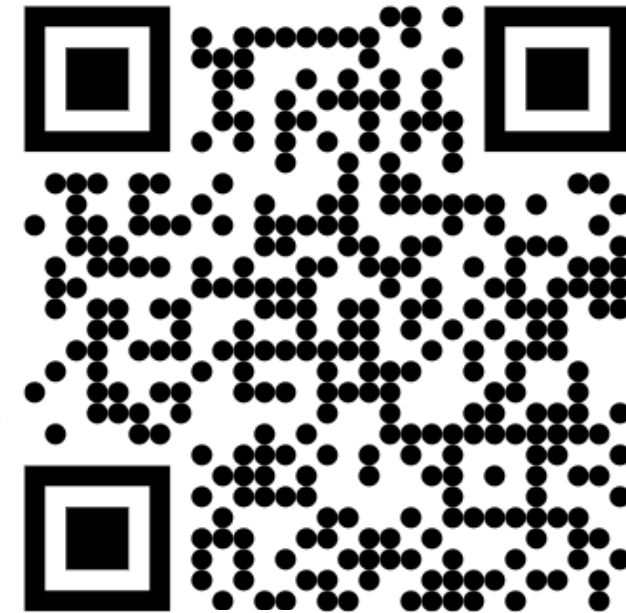
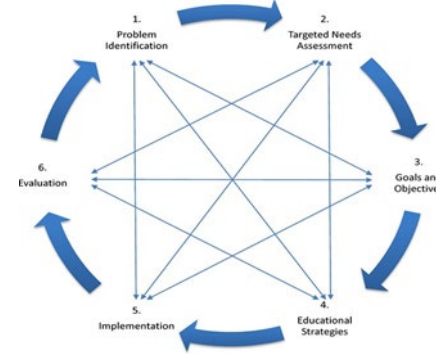
Scale and sustainability

Increased Immersion with Mixed Reality

Seamless blending of virtual and physical worlds creating more authentic training environments.

5: Implementation

LIBRA PROJECT Co-Created Simulation Program



- **Micro-Aggressions and Allyship**
- **Addressing Gender Stereotyping in a Group Project Setting**
- **Power differentials: Addressing Gender Inequality with a lecturer**
- **Appointing Committee Roles (Gender Diversity and Allyship)**
- **Bystander Intervention**

https://drive.google.com/drive/folders/1lynTUvx8V-__QLhAhP2_298On_l61O2M?usp=sharing

1. **Condrón C, Power M, Mathew M, Lucey S, Henn P, Dean T, Kirrane-Scott M, Eppich W, Lucey SM. (2025) Gender Equality Training for Students in Higher Education: A Scoping Review. JMIR Med Ed. 11, e60061**
2. **M Kirnan-Scott, M Power S Lucey, S Lucey CM Condrón. (2025) LIBRA A simulation-based gender equality training program for student leaders in higher education. Ad Sim**

Making Learning Stick

Spacing Effect - Spaced repeated practice

- Repeated exposures: long term memory

Cattaneo V et al. (2020) Repeating or spacing learning sessions are strategies for memory improvement with shared molecular and neuronal components. *Neurobiology Learn Mem.*

Vividness effect -in context authentic practice

- Hippocampal activation and episodic memory : deeper memory encoding

Barker R.M., et al. (2022). Neural reactivation and judgements of vividness reveal separable contributions to mnemonic representation. *NeuroImage Vol 255.*

Stress effect - in context decision making, crisis management

- Mild acute stress: \uparrow neuronal survival.
- Chronic stress: \downarrow neuronal survival.

Ghazali DA, et al. (2019) Stress response in the daily lives of simulation repeaters. A randomized controlled trial assessing stress evolution over one year of repetitive immersive simulations. *PLoS ONE 14(7):*



Repeated Practice is key

BMC Medical
Education



[BMC Med Educ.](#) 2019; 19: 263.

Published online 2019 Jul 16. doi: [10.1186/s12909-019-1663-2](https://doi.org/10.1186/s12909-019-1663-2)

PMCID: PMC6632214

PMID: [31311546](https://pubmed.ncbi.nlm.nih.gov/31311546/)

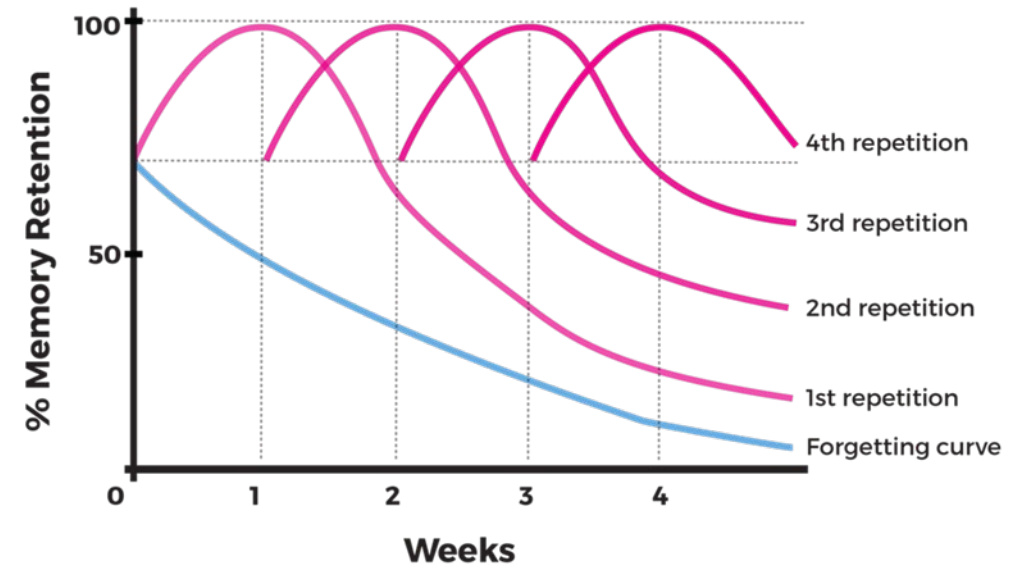
Evaluation of medical student retention of clinical skills following simulation training

[Gozie Offiah](#), [Lenin P. Ekpotu](#), [Siobhan Murphy](#), [Daniel Kane](#), [Alison Gordon](#), [Muireann O'Sullivan](#), [Sue Faye Sharifuddin](#), [A. D. K. Hill](#), and [Claire M. Condon](#)✉

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Curve of Forgetting

For newly learned information



6: Evaluate Everything We Do

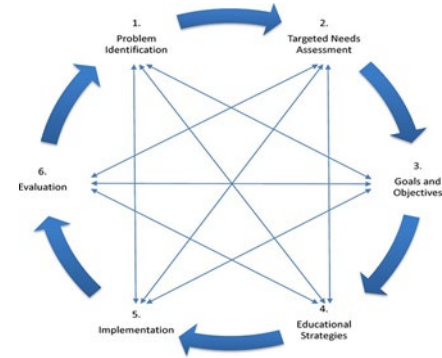


BMJ SIMULATION
& TECHNOLOGY EDUCATION

BMJ

Evaluation of simulation methods for teaching peripheral arterial examination to medical students

Syed Ali Naqi, Abdel Monim Salih, Anthony Hoban, Firas Ayoub, Michael Quirke, Arnold D K Hill, Claire Condon



BMC Medical
Education

BMC

BMC Med Educ. 2019; 19: 263.

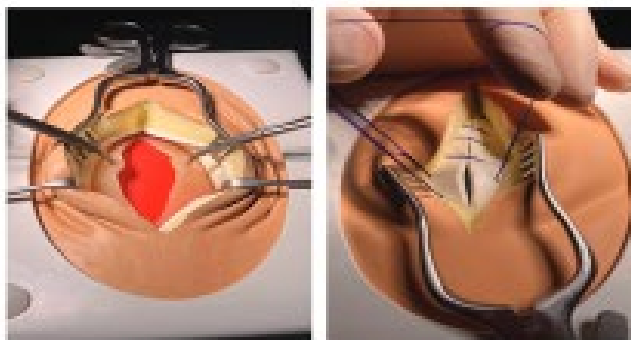
PMCID: PMC6632214

Published online 2019 Jul 16. doi: [10.1186/s12909-019-1663-2](https://doi.org/10.1186/s12909-019-1663-2)

PMID: [31311546](https://pubmed.ncbi.nlm.nih.gov/31311546/)

Evaluation of medical student retention of clinical skills following simulation training

Gozle Offiah, Lenin P. Ekpotu, Slobhan Murphy, Daniel Kane, Alison Gordon, Muireann O'Sullivan, Sue Faye Sherifuddin, A. D. K. Hill, and Claire M. Condon^{2†}



ELSEVIER

Contents lists available at ScienceDirect

The American Journal of Surgery

journal homepage: www.americanjournalofsurgery.com

Original Research Article

Collating evidence to support the validation of a simulated laparotomy incision and closure-training model

Adam F. Roche^{a,*}, Dara Kavanagh^b, Niamh McCawley^c, J.M. O'Riordan^d, Caithiona Cahir^e, Conor Toale^b, Dara O'Keefe^b, Tim Lawler^a, Claire M. Condon^a

Role of Faculty

our role

shift from traditional teaching to **facilitation**
guide learners' critical thinking rather than
delivering content.

Enhanced skills in

- Observation and Feedback
- Coaching
- Debriefing
- Scenario management



Role with many hats

Facilitator

Seeking to understand the learner's perspective
Responding to learners thoughts and emotions

Guide

Developing Relationships
Providing Structure



Teaching
and
Facilitating
Learning

Mediator

Intervening
Flattening hierarchy
Reconciling differences
Circumventing

Teacher

Imparting knowledge
Imparting insights

Faculty Development

Simulation in Healthcare

Journal of the Society for Simulation in Healthcare®

Articles & Issues ▾ Collections For Authors ▾ Journal Info ▾



Outline



Images



Download



Cite



IMSH RESEARCH SUMMIT

Mapping the Terrain of Faculty Development for Simulation

A Scoping Review

Gardner, Aimee K. PhD; Rodgers, David L. EdD; Steinert, Yvonne PhD; Davis, Rachel DNP; Condrón, Claire PhD, MBA; Peterson, Dawn Taylor PhD; Rohra, Anita MD; Viggers, Sandra MD; Eppich, Walter J. MD, PhD; Reedy, Gabriel PhD

[Author Information](#)🔒

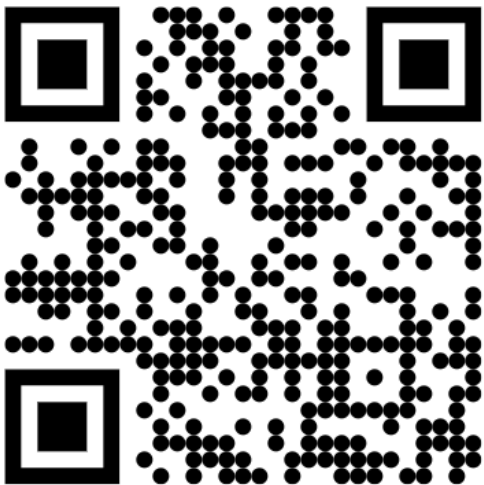
Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare 19(1S):p S75-S89, January 2024. | DOI: 10.1097/SIH.0000000000000758

- Most programs are short, one-off workshops rather than longitudinal or workplace-based.
- Wide variation in simulation faculty-development programs;
- Strong focus on debriefing and curriculum design; many competency areas underrepresented.
- Limited use of theoretical frameworks to guide program design.
- Evaluations focus mostly on participant satisfaction, few measuring behaviour change or impact.
- Facilitator qualifications and program context (funding, incentives) often under-reported.



SPIRIT

BUILDING INTERPROFESSIONAL
READINESS THROUGH
SIMULATION AND INNOVATION.



A blended approach

Shared online content

+ Site specific in person activities.

Psychological Bravery

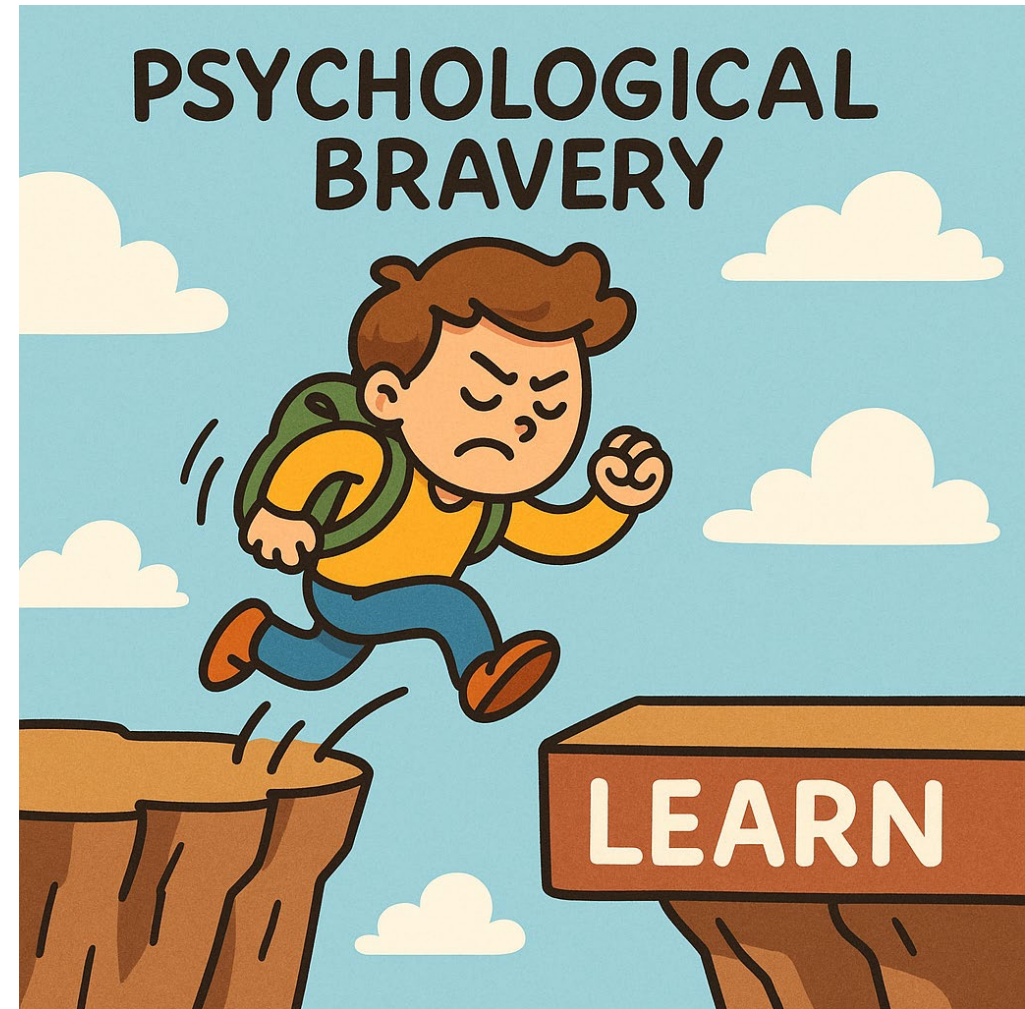
a *safe-to-fail* learning environment

Bravery is stretching competence,
Taking risks in front of peers & faculty.
Asking questions,
Trying new strategies
Owning and learning from mistakes

Faculty role:



support / challenge



Timely Feedback: Critical for Learning



Roche et al. *Advances in Simulation* (2024) 9:24
<https://doi.org/10.1186/s41077-024-00297-0>

Advances in Simulation

RESEARCH

Open Access



Remote feedback in endovascular simulation training: a mixed-methods study

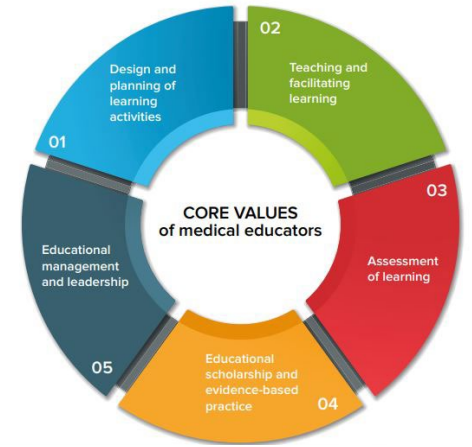
Adam F. Roche^{1,6*}, Daragh Moneley², Tim Lawler¹, Emily Boyle³, Greg Gosi⁴, Adrian O'Callaghan⁵, Caitriona Cahir¹, Dara O'Keeffe¹ and Claire M. Condon¹



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SIM

Train the Trainer

Academy of Medical Educators (AOME).



5 Key Domains



**RCSI
SIM**

CPD

Certificate

RCSI SIM FACULTY DEVELOPMENT COURSE

Welcome to RCSI SIM Faculty Development Course! We're delighted to have you with us as we build capacity in Simulation-Based Teaching in RCSI!

Below you'll find course content split into seven topics, including an introduction. The completion status bar will highlight in green as you work your way through the course content.

Topics 3 - 7 each have a live workshop element:

- Thursday 29th of August
- Monday 9th of September
- Tuesday 8th of October - ONLINE
- Monday 18th of November
- Monday 10th of February

Be sure to fill out the feedback form following each workshop to evidence your attendance

Announcements

<https://vle.rcsi.com/course/view.php?id=5450#section-0>



- Psychologically safe learning environments
- Authentic and relevance practice
- Learning outcomes aligned to simulation modality
- Feedback, debrief and reflection
- Transfer of skills
- Peer assisted learning
- Assessment drives learning
- Faculty development key quality driver
- Evaluation drives quality

THANK YOU

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LinkedIn : [linkedin.com/in/claire-condron-669b1b51](https://www.linkedin.com/in/claire-condron-669b1b51)

TWITTER: @RCSI_SIM

INSTAGRAM: rcsisimulation

WEB: www.rcsi.ie/simulation