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AT STAFFORDSHIRE UNIVERSITY



 **SIMULATION CONFERENCE 2022**



SIMULATION CONFERENCE 2022

WEDNESDAY 8 JUNE

TIME	ACTIVITY	SPEAKER/ FACILITATOR
8.00am - 8.55am	Registration/Refreshments	
9.00am - 9.30am	Welcome Welcome to Centre for Health Innovation	Ms Emily Browne: Associate Dean for Innovation and Enterprise (interim) Mr Mike Phillips: Executive Dean for The School of Health Science and Wellbeing (interim) Staffordshire University
9.30am - 10.30am	Keynote Safety in healthcare: The case for innovation in education	Dr Stefan Monk: Chief Medical Officer Healthcare, CAE
10.30am - 10.50am	Refreshments and Networking	
10.50am - 11.45am	Concurrent Session A	Please select from Concurrent Session Proforma
11.50am - 12.45pm	Concurrent Session B	Please select from Concurrent Session Proforma
12.45pm - 1.30pm	Lunch kindly sponsored by CAE Healthcare Exhibition and Networking	
1.30pm - 2.25pm	Concurrent Session C	Please select from Concurrent Session Proforma
2.25pm - 2.40pm	Comfort break	
2.40pm - 3.40pm	Keynote Advancing healthcare professional competence through authentic technology enhanced and simulation-based learning & education: Pedagogies for reconceptualising the theory-practice gap	Dr Keith W. Weeks: Professor Emeritus, University of South Wales; President of Translational Research & CRDO, Authentic World Ltd Norman Woolley: President of Business Management & CEO, Authentic World Ltd Alex Weeks: Associate Director of Mathematical Modelling & Translational Research, Authentic World Ltd
3.40pm - 3.50pm	Summary Formal close	Ms Emily Browne: Staffordshire University
3.50pm - 5.00pm	Meet the exhibitors / Meet the Patient Safety and Simulation Team	
5.00pm	Conference close	



SIMULATION CONFERENCE 2022

CONCURRENT SESSIONS

SESSION	ROOM CH005	ROOM CH007	ROOM BHL103
Session A 10.50am - 11.45am	Designing and delivering virtual simulation placements for Nursing Students Dr Hephzibah Samuel Anglia Ruskin University	A journey: The development of large scale inter-professional simulation Mr Joseph Natalello Staffordshire University	Enabling Collaboration and Interoperability in Scenario Design: The iRIS Simulation Authoring Platform Mr Gary Taylor CAE and Ms Amanda Wilford Staffordshire University
Session B 11.50am - 12.45pm	Creating a community of practice for simulation – leveraging the INACSL standards Mr. Matthew Aldridge University of Wolverhampton	Build it and they will sim.... Ms Emily Browne and Mr Joseph Natalello Staffordshire University	The use of virtual reality in education to support stress inoculation of students. Ms Zoe Yeomans Staffordshire University
Session C 1.30pm - 2.45pm	Throwing out the teaching PowerPoint; A hybrid simulation design. Ms. Michelle Shuker University of Wolverhampton	Bridging Theory and Practice: The Simulation Practitioner Mr Derek Chebsey Staffordshire University ----- ---- Simulation Technology and its Application Mr Joshua Burston Staffordshire University	'Ventilation of premature babies and older ladies!' Mr David Halliwell, Lifecast Body Simulation



KEYNOTES

Safety in healthcare: The case for innovation in education

Dr Stefan Monk
Chief Medical Officer, Healthcare,
CAE

Over several decades we have addressed, but not quite solved, the problem of safety in healthcare. On a global scale, as we are facing a growing shortage of healthcare workers, the risks in healthcare only seem to increase. COVID-19 has aggravated the problem, not caused it, and it will not go away if the pandemic does. That lack of safety effects everybody in healthcare, not 'just' patients.

One way to address the challenge is through education for knowledge and skills and attitudes. But this is difficult as the lack of healthcare professionals extends to a lack of healthcare educators. We also know that gaps in human performance, also known as human factors, while responsible for many errors, are rarely addressed in education for healthcare professionals.

A larger educational initiative is required. That activity cannot be limited to the traditional target audience, i. e. students, but needs to address the ongoing educational needs of all healthcare professionals, including administrative decision makers and support staff. Education methods need to be focused and high tech in nature to overcome the lack of available resources such as staff, time, and funding. If supported by data we can employ targeted interventions, further increasing efficiency. I will present and discuss examples of such activities.



KEYNOTES

Advancing healthcare professional competence through authentic technology enhanced and simulation-based learning and education: Pedagogies for reconceptualising the theory-practice gap

Dr Keith W. Weeks Professor Emeritus, University of South Wales; President of Translational Research and CRDO, Authentic World Ltd

Norman Woolley President of Business Management & CEO, Authentic World Ltd

Alex Weeks Associate Director of Mathematical Modelling and Translational Research, Authentic World Ltd

We present a 30+ year programme of international translational research that is underpinned and informed by integrated models of healthcare professional competence development and simulation education pedagogy (Weeks et al, 2013, 2017, 2019, 2020). Our emphasis is two-fold. First, we set out the premise of re-conceptualizing traditional knowledge, skills and attitudinal models, to an integrated cognitive, functional, ethical, personal and meta competence model of professional nursing practice. Second, we call for a re-conceptualization of the cognitive and physical modalities of a theory-practice gap, created by the traditional organization of healthcare professional education practice. We suggest that such organizational practices create artificial boundaries around classroom and practice environments and accentuate intervening liminal spaces (Latin: limens = threshold), that act as barriers to learning, integration and transfer of competence.

Much has been made in 20th and 21st century pedagogy of “bridging the theory-practice gap”. Using metaphors like this implies that the cognitive and physical chasm between classroom and practice environments would remain even if such a bridge could be built. We propose a different view, that a wide spectrum of virtual and high-fidelity simulated clinical environments: (a) occupy the liminal spaces that exist between the ordered, symbolic and abstract world of the classroom, and the situated, messy world of clinical healthcare practice; and (b) when organized appropriately, they create shared ‘third space’ environments that support the forging of boundary intersections, the breaking down of barriers to learning and facilitate boundary crossing. We present a constructivist-based clinical simulation education model, that employs technology-enhanced boundary objects (TEBOs) within a community of education practice, designed to: (a) support nursing student and registered practitioner competence development, integration, assessment and transition across the liminal spaces and boundaries between classroom and practice settings; and (b) support early career educators to craft competence development and literacy in simulation education pedagogy.

To illustrate the application of the competence model we set out the international translational research journey (1990-2022+) followed for the design, development and application of the suite of safeMedicate® drug dosage calculation and wider mathematics and healthcare numeracy environments. safeMedicate is currently used by circa 90% of universities offering healthcare professional education programmes and many hospital systems in the UK. It has informed the competence development of healthcare students and practitioners across five continents and 13 countries. To date over 5.5 million safeMedicate competence assessments have been undertaken, contributing to a major advancement of global patient safety via high quality & innovative simulation education and pedagogy.

REFERENCES

Weeks, K. W., Hutton, B. M., Coben, D., Clochesy, J. M., & Pontin, D. (2013). Safety in Numbers 3: Authenticity, Building knowledge and skills and Competency development and assessment: The ABC of safe medication dosage calculation problem-solving pedagogy. *Nurse Education in Practice*, 13(2), e33–e42. doi: <http://dx.doi.org/10.1016/j.nepr.2012.10.011>

Weeks, K. W., Coben, D., Lum, G., & Pontin, D. (2017). Editorial: Developing nursing competence: Future proofing nurses for the changing practice requirements of 21st century healthcare. *Nurse Education in Practice*, 27, A3-A4. doi: <https://doi.org/10.1016/j.nepr.2017.08.020>

Weeks, K. W., Coben, D., O’Neill, D., Jones, A., Weeks, A., Pontin, D., & Brown, M. (2019). Developing and integrating nursing competence through authentic technology-enhanced clinical simulation education: Pedagogies for reconceptualising the theory-practice gap. *Nurse Education in Practice* 37, 29-38 <https://doi.org/10.1016/j.nepr.2019.04.010>

Weeks, K.W. & Pontin, D. (2020) Editorial: Modelling the landscape of professional nursing competence – A global perspective. *Nurse Education in Practice* Volume 44, March 2020. <https://doi.org/10.1016/j.nepr.2020.102738>



CONCURRENT SESSIONS (PLEASE ATTEND ONE)

PLEASE REFER TO PAGES 2 AND 3 FOR LOCATION

Session A 10.50am – 11.45am

Designing and delivering virtual simulation placements for Nursing Students

Dr Hephzibah Samuel, BSc Nursing; MSc Child Health Nursing, MA Sociology, PG Diploma in Teaching and Learning and PhD (Nursing Education), NMC; UK registered in Part 1, 8 and NMC Teacher.
Anglia Ruskin University

Anglia Ruskin University developed a six-week credit-bearing virtual simulated placement (VSP) for first-year student nurses. This placement was developed for student nurses who were unable to access placement areas because they were assessed as high risk if they contracted Covid-19. Without a placement, these students would have been intermitted and potentially may not have returned, depriving them of a career and the NHS of future nurses.

Different to commercial products and examples from other universities, this placement employed an interactive virtual learning environment. Students were supported on a daily basis by practice supervisors and assessors. Using a range of learning materials and technology, together with real-time clinical skills sessions, the placement was underpinned by a pedagogy aligned to the placement outcomes. The aims of the VSP were to provide student nurses with a placement that would:

- map to the future nurse standards of proficiencies for registered nurses (NMC, 2018) normally achieved in the first year of the RN programme
- support the students to develop demonstrable nursing skills working as part of a multidisciplinary team
- be authentic and engaging
- be accessible and meet the needs of the diverse student group
- meet the needs of adult, child and mental health students
- have a robust assessment strategy
- encourage students to ask questions, reflect on knowledge, skills and attitudes when working with others.

Whilst the primary focus in traditional placements is patient care, the VSP reflected growth in skill development, knowledge and attitudes. Students learnt to adapt to a new environment, work in different ways, with different teams in different patient care situations. Knowledge and skills transferrable to a wide range of healthcare settings. The development and delivery of this innovative approach is staff resource intensive, but it has quality and parity of experience for all students. The VSP is now being aligned into the nursing curriculum as a regular occurrence.

A journey: The development of large scale inter-professional simulation

Joseph Natalello, BSc (Hons)
Staffordshire University

We have been designing and delivering experiential large scale interprofessional simulation exercises since 2019. These simulated experiences have promoted learning and working together across the multi-disciplinary field with both qualified and pre-registration nursing and paramedic students. The impact of working with 'qualified' professionals really added to the realism of the simulation.

We take a 'hands off' approach to the delivery of the simulation and used real time to encourage enhanced innovative thinking and emphasise human factors principles.

Both nursing and paramedic students responded positively to having to put their leadership skills into practice in a real time situation, something that despite great placements they often felt unable to do in the 'real' world.

All students wanted more of this style of simulation activity, and that the hands-off facilitation style really helped with their learning and preparation for practice and the experience was enhanced by good quality debriefing.

Enabling Collaboration and Interoperability in Scenario Design: The iRIS Simulation Authoring Platform

Gary Taylor, BSc (Hons) Digital Solutions Sales Manager and
Amanda Wilford, MA, DipANC, RGN (Hons)
CAE and Staffordshire University

This session will focus on the benefits of, and obstacles to, collaboration and interoperability in scenario design and simulation. It will also demonstrate the iRIS Simulation Authoring Platform to show how these obstacles can be overcome and scenarios reused with different technologies from different vendors.

It will also explore how the CHI at Staffordshire University has implemented and used iRIS to manage their development of scenarios and collaborate with others.



CONCURRENT SESSIONS (PLEASE ATTEND ONE) PLEASE REFER TO PAGES 2 AND 3 FOR LOCATION

Session B 11.50am – 12.45pm

Creating a community of practice for simulation – leveraging the INACSL standards

Matthew Aldridge, RN, BSc(Hons), MEd, SFHEA
University of Wolverhampton

The International Nursing Association of Clinical and Simulation Learning (INACSL) is a global organisation dedicated to advancing the pedagogy of simulated learning. INACSL has created a set of peer-reviewed standards of best practice for simulation which can be used to bring standardization and quality enhancement to simulation programmes. This session will give an overview of the standards and discuss how collaboration through the creation of a Regional Interest Group (RIG) could be of mutual benefit to the simulation community in the Midlands, Marches and beyond.

Build it and they will sim...

Emily Browne, MSc, PHCHPE, BSc, RN, and
Joseph Natalello, BSc
Staffordshire University

An overview of the process of designing and delivering a simulation center. The highs and lows of making a vision into a reality.

The use of virtual reality in education to support stress inoculation of students

Zoe Yeomans, Level 4 Academic Lead
Staffordshire University

The use of virtual reality in social work education is an innovative and exciting development for Staffordshire University. Funded through the DfE via the West Midlands teaching partnership & delivered in partnership with Stoke on Trent City Council Children's services, the VR project originally sought to bridge the education gap for student social workers and newly qualified social workers, who had experienced significant disruption to their practice-based learning experiences because of the Covid-19 pandemic. Its use has now been embedded in teaching and learning across the social work curriculum and into CPD for experienced practitioners. This interactive workshop will showcase the use of virtual reality to develop student social workers' readiness for supervised practice both emotionally, and practically. The session will give attendees the opportunity to experience the world through a child's eyes, and experience visiting the home of a child who requires support to safeguard and promote their welfare. Central to the session will be reflection and debrief on the experience, its impact and application in multi-disciplinary teaching.

Session C 11.50am – 12.45pm

Throwing out the teaching PowerPoint; A hybrid simulation design

Michelle Shuker, RN, BSc, PgCHPE
University of Wolverhampton

A review of an innovative module design utilizing CAE maestro evolve, a virtual simulation software, within a traditionally theoretical pathophysiology nursing module, to assist students to consolidate underpinning theoretical knowledge into practical examples.

The session will explore lessons learnt using this software within the module design, consider approaches for further development and note student views of throwing out the PowerPoint.

Bridging Theory and Practice: The Simulation Practitioner

Derek Chebsey, RN, BSc (Hons) Nursing Practice Child
Staffordshire University

This session will discuss how the role of the Simulation Practitioner has impacted on the Universities pedagogical approach to healthcare education and how we achieve this working alongside academics, partners, Technologists and the healthcare students.

Simulation Technology and its Application

Mr Joshua Burston - Technical Specialist
Staffordshire University

This session will discuss the application of technology in Simulation Based Education – looking at how we use the stuff we bought!

'Ventilation of premature babies and older ladies!'

David Halliwell, MSc Paramedic
Lifecast Body Simulation

This interactive workshop will transform your understanding of human factors and physiology across the age spectrum - using ventilation monitoring as the tool for a group discussion. If you think you are good at airway stuff, then prepare to be even better by the end of this one. This session has previously been delivered at several key medical education meetings around the world.



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UNIVERSITY OF THE YEAR

Edufuturist Awards 2021

TOP 15 FOR TEACHING QUALITY

StudentCrowd University Awards 2021

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Complete University Guide 2022

TOP 20 FOR JOB PROSPECTS

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6TH FOR SOCIAL INCLUSION

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