## Nursing Students experiences of Mixed Reality (MR) simulation



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## **Background context**



- Teaching modality that compliments traditional methods
- Enables students to learn in a safe, supported environment
- 'Mimics' the real environment
- Personal experience of using MR
  - Enthusiasm
  - Captivating and engaging learning experiences



## **Fidelity and Realism in Simulation**



#### Bridging the gap

Refers to simulation experiences that are extremely realistic & provide a high-level of interactivity & realism for the learner

Low, Medium and High Fidelity

Fidelity vs. Realism in Simulation





translate/influence or affect clinical practice? Maybe it doesn't???

Do different generations experience this simulation modality differently?

#### **Research Question**



What are the lived experiences of pre-registered nursing students who undertake mixed reality simulation as part of their curriculum?



## What does the literature say?



Simulation is a well-established pedagogy

Increased awareness around clinical judgement, proficiency, knowledge retention, aptitude of technical and clinical skills

Simulation compliments other more traditional teaching practices

Promotes student engagement, desire to learn, develops confidence & is a perfect podium to equip nursing students with skills that are essential as a qualified nurse

Safe & non-threatening environment

## **Gap in the Literature**



Absence of nursing students voice in mixed-reality simulation research

Will explore the experiences of this simulation modality from the undergraduate nursing students perspectives





#### Mixed Reality (MR)

Mixed reality is a technology that involves placing virtual objects into the real world and adjusting them to a physical environment in order to expand its functionality as well as allow users to interact with both virtual and real objects in real-time (Tsyktor, 2018)

#### The Virtuality Continuum (D) www.virtualiteach.com @steve\_bambury AUGMENTED REALITY: AUGMENTED VIRTUALITY: Virtual content augments Real content augments the real world. a virtual world. AUGMENTED AUGMENTED VIRTUAL REALITY REALITY REALITY VIRTUALITY MIXED REALITY MIXED REALITY: A blanket term to describe any experience between the extremes of the continuum REALITY: VIRTUAL REALITY: The completely real, A completely synthetic, physical world we live in. digitally-created world.

#### Reality-Virtuality Continuum Created by Paul Milgram (1994)







## Phenomenology

Strong philosophical and epistemological approach to the study of experiences

Rich source of ideas about how to examine & comprehend lived experiences

Descriptive, interpretative, hermeneutic

- Phenomenological reduction
- Bracketing

(Creswell, 2018; Liamputtong, 2017)





#### **Hermeneutic Phenomenology**



'being attentive to both terms of its methodology; it is descriptive (phenomenological) because it wants to be attentive to how things appear, it wants to let things speak for themselves; it is an *interpretive* (hermeneutic) methodology because it claims that there are no such things as uninterpreted phenomena





#### Van Manen's existential themes



*Lived Body (corporeality):* This theme refers to the phenomenological fact that one's body is the basis mode of being in the world. The mind is embodied consciousness and remembers key important aspects like pain, smell, and experiences

*Lived Space (spatiality):* This theme focuses on the environment perceived by the participants. It refers not only to physical aspects (height, depth, length) but also to the understanding of the space where the phenomenon occurred.

*Lived Relations (relationality):* This theme refers to the connections one makes when interacting with other human beings. Through interactions with others, bonds, friendships, and relationships are formed.

*Lived time (temporality):* Lived time refers to the time in which the experiences occurred. It examines experiences in a chronological or historical order. Lived time is subjective in nature and varies from each individual



#### Van Manen's existential themes



*Lived Things (materiality):* The fifth existential theme is materiality which may guide our reflective processes in asking how 'things' are experienced in relation to the phenomenon. It is important to recognise the significance of 'things' in our lives.

Addendum: Technology: Lived Cyborg Relations: Building on philosophies of technology (van Manen, 2014) provides some thoughts to the additional existential theme of technology. distinguishes between five kinds of lived cyborg relations in relation to the human experience of the existential of things and technology.





Stage 6: Balancing the research by considering parts & whole

Stage 5: Maintaining a strong focus on the phenomenon

> Stage 4: Describing the phenomenon through the art or writing & re-writing

Stage 1: Turning to the phenomenon

Van

Manen's

six steps

Stage 2: nvestigating the xperience as we lived it

Stage 3: Reflecting on essential themes that characterise the phenomenon

# **RESEARCH PARTICIPANTS**



#### **ARE YOU?**

An undergraduate Bachelor of Nursing student?

#### HAVE YOU?

Had experience with mixed reality simulation as part of your curriculum in the past 6 months?

WILL YOU?

Participate in a research study interview via Zoom or Skype with PHD candidate, Karyn?

#### WHY I NEED YOU

Your valuable experience of using mixed reality simulation in your undergraduate nursing curriculum will assist in providing your voice on an international podium.

#### IF THIS IS YOU, PLEASE CONTACT ME

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## Where am I at?



Participant recruitment Interviews have commenced Beginning of Data Analysis



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