

Teaching & learning in the Immersive Room

Media & Learning 2024 Leuven



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What is an immersive room?

- Combination of audio, visuals, and real objects in a room...
- Visuals projected on three touch sensitive walls (virtual content, 360 degree video)
- One wall with a window for observation from control unit
- debriefing functionalities: recording, streaming, voice-over and coaching options
- Software platform
- Kinly & Secta Immersive



Immersive room



- There is a shortage of learning- and workplace learning environments for new health professionals
- Extended Reality (XR) in combination with simulation learning can create new innovative possibilities for workplace learning
- XR creates new possibilities for safe practice- and feedback environment for training skills



Affordances for teaching & learning

- A safe practice- and feedback environment for students, allowing them to practice skills while navigating complex, risky, or difficult scenarios which are hard to organize in a real-life context
- Training: basic- and technical skills, critical thinking skills, problem solving, soft skills & conversational skills
- Creating a realistic viewpoint of the professional workplace
- Creating shared experiences
- Active learning & student engagement



When do you use which XR technology?

- Individual learning vs collaborative learning
- Virtual vs physical presence
- Interaction with virtual vs physical objects
- Degree of immersiveness
- Degree of realism
- Degree of interactivity
- Flexibility & user experience
- Inclusivity
- Safety
- Content & content production
- Costs & maintenance



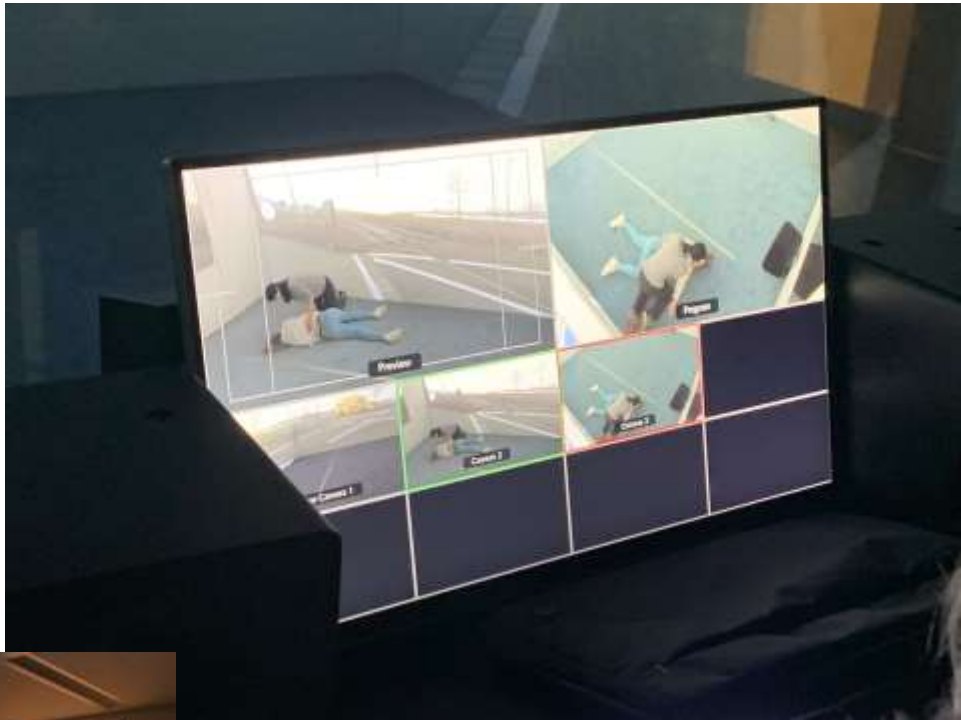
VR-headset	Immersive room
Individual experience & task oriented, VR in preparation for immersive room	Collaborative learning, shared experience
Virtual presence (disembodied)	Physical presence, free movement in the room
Interaction with virtual objects/avatars	Interaction with virtual and real objects/people
VR content production	IR content production
Initial costs are lower	Initial costs are high
Not bound to one physical space	Bound to one physical space, but you can switch the context



Windesheim	Inholland
Four years of experience (incorporating)	One year of experience (exploring & implementing)
1 IR Nursing at campus location Zwolle, 1 IR Social Work campus location (starting sept 2024) and 1 mobile IR (in development)	1 IR at new campus location Amsterdam
Faculty of Health (Nursing) Social Work	Faculty of Health (Nursing) , <i>Social Work, Faculty of Agri, Food & Life Science, Faculty of Creative Business</i>
Scenario's for nursing, health and social work, escaperoom, problem solving, serious gaming	Scenario's for nursing and health, plans virtual laboratory, problem solving, serious gaming
Small groups	Small groups
Student recruitment, external contracting	Student recruitment









What is the impact of the immersive room for teaching & learning

Students	Teachers
Higher student engagement (motivation, personal)	Visible growth in development among students in practical education: skills plus attitude!
More concentration and focus	Enthusiastic students energize teachers
More serious, it's game on!, you are really doing it!	Eager to learn. Intensive for both teachers and students
Better reflection on skill development	Student attendance is high!
Better preparation for real life practice/internship: more realistic, dealing with pressure	It's most effective when you align it with other learning activities and workplace learning in real-life!

What is the impact of the immersive room for teaching & learning

- We need to understand more about how XR technology in combination with simulation learning can support workplace learning (eg. [Jansen, Zwart, Van Til, Verhoeven, 2023](#), in Dutch)

Implementation of the immersive room

Technology	Education	Innovation
High investment (€150.000 - €200.000): hardware, software, licencing fees, maintenance, content development.	Start small and learn, teacher staff experiments	Start a teaching & learning network
Technical support staff is important	Alignment with learning goals and student characteristics,	The IR needs a change agent
Experienced teachers should be able to operate the IR by them selves.	Combination of learning activities in campus and workplace learning	Leadership, change management
Content production: you can create an immersive experience with 'simple' 360-degree video	Guidance of teachers and workplace coach	Sticky campus, future learning spaces
	Students as partner	

Thank you!



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