



KEY CONCEPTS
Guide to developing effective content for Highly Immersive Virtual Environments

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<https://ijohs.com/article/doi/10.54531/AFZA5906>



GUIDE TO DEVELOPING EFFECTIVE CONTENT FOR HIGHLY IMMERSIVE VIRTUAL ENVIRONMENTS (HIVE)
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Simulation is an important learning method in health professionals' education. Beyond technical-skill development, other dimensions of learning are important including situational awareness. Increasingly, technology is being utilized to enhance context in simulation. One such technology is Highly Immersive Virtual Environments (HIVE). HIVEs permit learners to be immersed in a physical room and provide an enriched auditory, olfactory and visual context/backdrop; affording learners 'bodily' experiences as a scenario unfolds - i.e. a tacit experience that is entangled with place. The possibilities of context that can be produced in HIVEs is potentially limitless. As HIVEs gain traction in simulation, evidence needs to guide how best we optimize such technology in learning. In our project, a cross-discipline team devised a process for development of HIVE content.



STEP 01



Gather the team

A multidisciplinary team will help enrich and deliver effective HIVE content:

- **Technical expertise** (e.g. an AV specialist)
- **Content expertise** (e.g. a healthcare professional)
- **Educator** (e.g. a simulation practitioner who can guide on the pedagogical framework)
- **Learners** (e.g. to ensure that the content is learner-centric in its development)

STEP 02



"Content with intent"

Central to any effective HIVE content production - is to consider the educational purpose that it will serve. The effectiveness of the HIVE learning activity will hinge on its alignment to the intended educational purpose. Therefore, it is vital that the content of the HIVE aligns with the intended Learning Outcomes.

STEP 03



Create the story

Producing a story board of your HIVE content will help refine and enhance its impact. Take time to consider what should be in the scene and important detail that will convey authenticity. As ever - important to be mindful of making the scene as timeless as possible and consider the diversity and inclusiveness in its content.

STEP 04



Preparation for filming

Once you have considered the 'story' of the HIVE content - then you need to turn your attention to preparing to capture the content. This will include:

- Location scouting
- Risk assessment
- Gaining permissions and consents
- Schedule a date / time
- Preparing your AV equipment (including back ups and batteries fully charged!) and any necessary props
- Planning for 'other' factors - including weather

STEP 05



Recording day

- Further risk assessment to be carried out
- Set up the scene
- Gain consent from any individual who may be present in the footage
- Capture film and audio with the appropriate equipment for your HIVE set up
- Play back footage to ensure that it's correctly captured - otherwise try again!
- Break down equipment and leave location as you found it

STEP 06



Post production

- Review and edit your footage - ensuring it aligns to your educational purpose
- Trial run content in your HIVE cave
- Seek feedback from users before finalising content
- Encourage feedback of how to enhance in the future - especially on skills such as situational awareness



Developing HIVE 'content' with educational 'intent'

