The power of virtual reality *for education*

Virtual reality (VR) has special learning affordances (properties) that can be used to engage students and promote deep learning.

Learners can train for, practice and have experiences in VR that are impractical, impossible or unsafe in real life, e.g. they can fly through a meteor field or fix a spaceship in zero gravity.

Networked virtual experiences allow learners from anywhere in the world to communicate, collaborate and problem solve, together.

VR can make learners feel as if they are really in situations or that they viewing the world through the eyes of others, and this can create empathy.

VR allows for the manipulation of size and scale e.g. a cell can be the size of a house or the learner can travel as a cell through the bloodstream of a body.

Learners can see, hear and manipulate information in VR that is not accessible in real life or to the human senses, e.g. they could follow a visualised animal scent trail or change the temperature of the ocean and observe the effects, all around them.

VR environments can provide a space to rehearse professional or social skills e.g. job interview skills or healthy decision-making in a peer group.

Spatial concepts are bought alive in VR as learners manipulate, interact and create in a 3D mode that is all around them.

Some VR environments are studios or 'sandboxes' for learners to playfully design, create and prototype: there is no need to access physical materials or worry about generating waste.

Infographic by Erica Southgate PhD, based on research by:

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