TRANSFORMING THE LEARNING EXPERIENCE

Using Virtual Reality to Improve Training and Employee Competencies

AECOM — Imagine it. Delivered.

Areas of Expertise

- **Training Program Design, Development and Conception** - Customized training simulations can be designed and built for use on client-owned or rented hardware and hosted online or local workstations

- **Immersive Training Studio Design** - Our professionals build immersive on-site studios at client locations

- **Software/Hardware Consultation** – Support in selecting platforms to meet your specific cost, content, connectivity and portability needs

AECOM delivers the required technologies, tools and subject matter expertise to improve your training program through the use of virtual and augmented reality.

Benefits of Virtual Reality Integration Into Your Training Programs

- Maximize your employees' valuable time spent in training.
- By improving the training experience, incidents involving employee lack of knowledge are lessened, reducing risks.
- Learning outcomes are estimated at **75+% IMPROVED** when using immersive technology over traditional teaching methods.
- When combining immersive technology with traditional teaching, learning outcomes are even better, estimated at **110+% IMPROVED!**

The benefits far outweigh the costs.

Overview

- ☑ Do employees and managers complain about the amount of time invested in HSE training?
- ☑ Are there concerns about how well employees understand and retain the information being presented?
- ☑ Do incident and near miss investigations often point to lack of or inadequate training as a root cause?
- ☑ Does the delivery mechanism result in boredom and a lack of focus?

Organizations are trying to leverage innovative technologies to better deliver health, safety and environmental (HSE) content. AECOM is working with partner vendors and clients to develop and validate use cases and pilot real world scenarios for these technologies.

Immersive technologies like virtual reality (VR) are becoming widely used in our daily lives. AECOM is at the forefront of implementing this technology to dramatically transform HSE training programs. When this technology is applied in training and learning scenarios, the results are longer term retention and a deeper understanding of the material. The key is placing the learner in a controlled, virtual environment that uses active participation, instead of passive (and often limited) absorption. The improved interactivity and realism of the learning environment creates more meaningful experiences that leave a lasting impact.

Tools

AECOM has used a variety of software and hardware in expanding our virtual reality offering for training, auditing, and inspections. AECOM can help you select the best fit for purpose tool to meet your needs.

MOBILE APPLICATIONS

Software designed to run on a mobile device. Virtual environment for phone or tablet using 360° panoramic images. Gaze navigation, triggered by "hotspots" connecting user to next image. Great for public outreach, shows completed design or construction.

GOOGLE CARDBOARD

Phone mounted foldout cardboard viewer. Head-mounted display, stereoscopic view to enrich immersive feeling. Low cost and ease of use, perfect for wider audiences. Easy to implement and can use with any phone. Offers ability to brand custom give-away headsets.

SAMSUNG GEAR VR

Samsung phone mounted to headset. Wireless, content delivered over the web. Higher image quality, more interactivity. Suited for training with more visual observation, but limited environmental interaction.

HTC VIVE

Physically move in room-scale virtual reality environment, using handheld controllers for manipulating and interacting with virtual objects. Locational audio, playback and tracking capabilities to record, follow movements. Great for showing design and training with vastly increased interaction capability.

HOLOLENS

Mixed reality platform. User sees physical world and high-definition holograms. Greater collaboration as multiple users see same virtual world simultaneously. More sophisticated and complex than other platforms, provides highest interactivity.

AECOM VISUALIZATION STUDIO
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