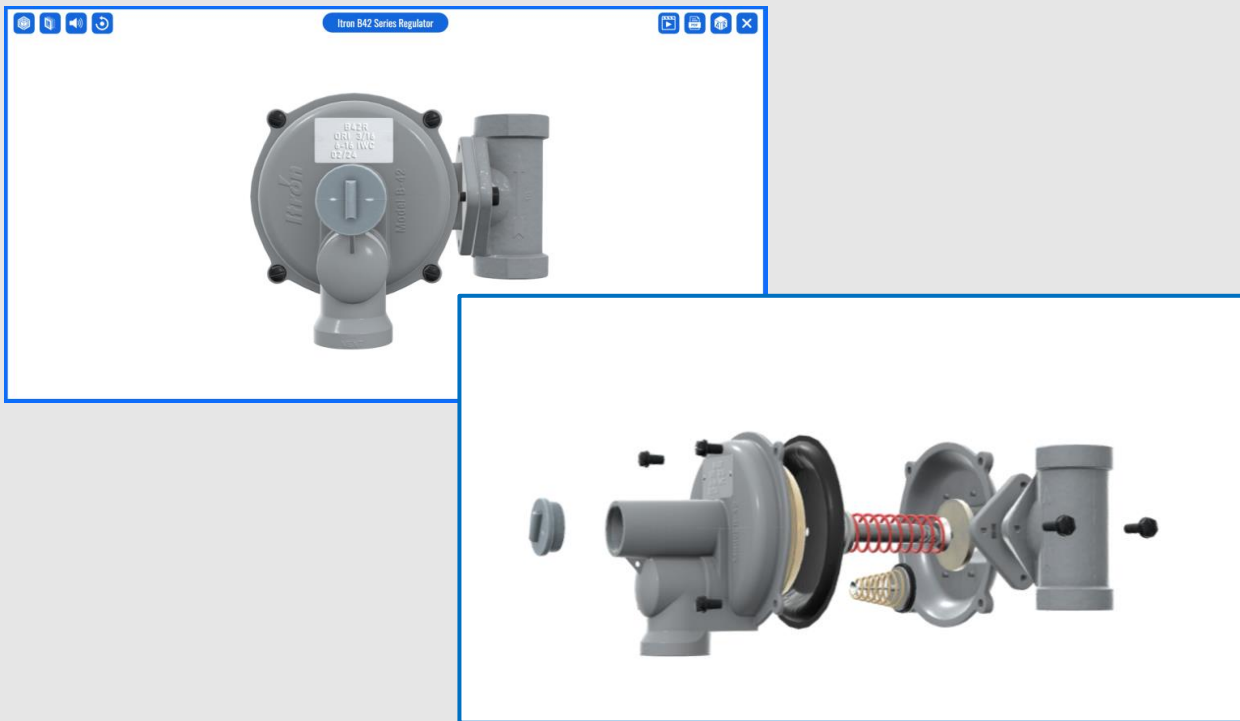


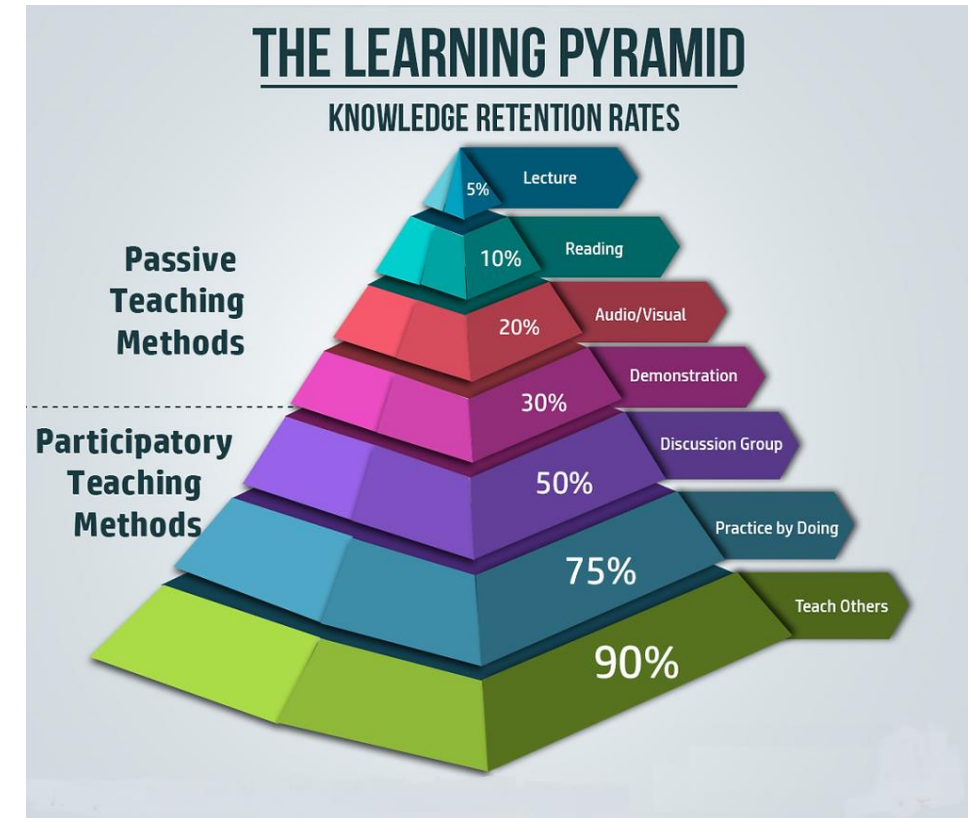
NextGen Training Consortium

August 2024



Meeting Agenda

- Introductions
- Consortium Mission and Vision
- Meeting Format
- Future Training Topics
- **Main Topic:** 3D Interactive Models
- Open Forum
- Next Steps



Introductions

- **Consortium Chair**

- Jayant Mathur, GTI Energy, Sr. Program Specialist, jmathur@gti.energy

- **Consortium Co-Chair**

- Connor Wells, New Jersey Natural Gas Company, Technical Training Consultant, cwells@njng.com



- **Consortium Contributor**

- Ray Deatherage, GTI Energy, Director Education & Training, rdeatherage@gti.energy

Consortium Mission and Vision

- **Mission:** Our mission is to revolutionize knowledge transfer in the energy industry by delivering cutting-edge, innovative training solutions that empower professionals with the skills and expertise needed to drive sustainable growth and safety.
- **Vision:** We envision a future where every energy professional has access to state-of-the-art training tools and resources, enabling them to excel in their roles and contribute to a safer, more efficient, and sustainable energy sector.



Consortium and Meeting Format

- **Primary Topic:** Each month the plan is to have one primary training topic/technology to focus on.
- **Live Demos:** To see training technologies in use firsthand.
- **Use of Surveys:** To provide training departments with the information needed to push forward training initiatives within their organization.
- **Technology Pilots:** Ability to pilot and test training technologies.



Future Training Topics

- 360 Degree Experiences
- Gamification
- Micro-Videos
- Virtual Reality (VR) Training
- Augmented Reality (AR) Training
- Mobile Instructor Tools
- Artificial Intelligence (AI)
 - i. Training Aid (e.g., Chatbot)
 - ii. How to Aids (e.g., Step-by-Step)
 - iii. Quiz Maker
 - iv. Classroom Polling and Survey Tools

3D Interactive Model Training Overview

- Benefits of Technology
- Features and Capabilities
- Use Cases
- Content Distribution
- Example of Development Costs
- Live Demo

Advantages of VR and 3D Immersive Technology in Training

The immersive experience of VR and the ability to provide a wide array of training experiences means learners are attuned to the experience, boosting their retention of information.

By Alex Howland, Ph.D. - December 28, 2020

ITIF | INFORMATION TECHNOLOGY & INNOVATION FOUNDATION

CENTERS

ISSUES

REGIONS

PUBLICATIONS

EVENTS

NEWS

ABOUT

The Promise of Immersive Learning: Augmented and Virtual Reality's Potential in Education

By [Ellyse Dick](#) | August 30, 2021

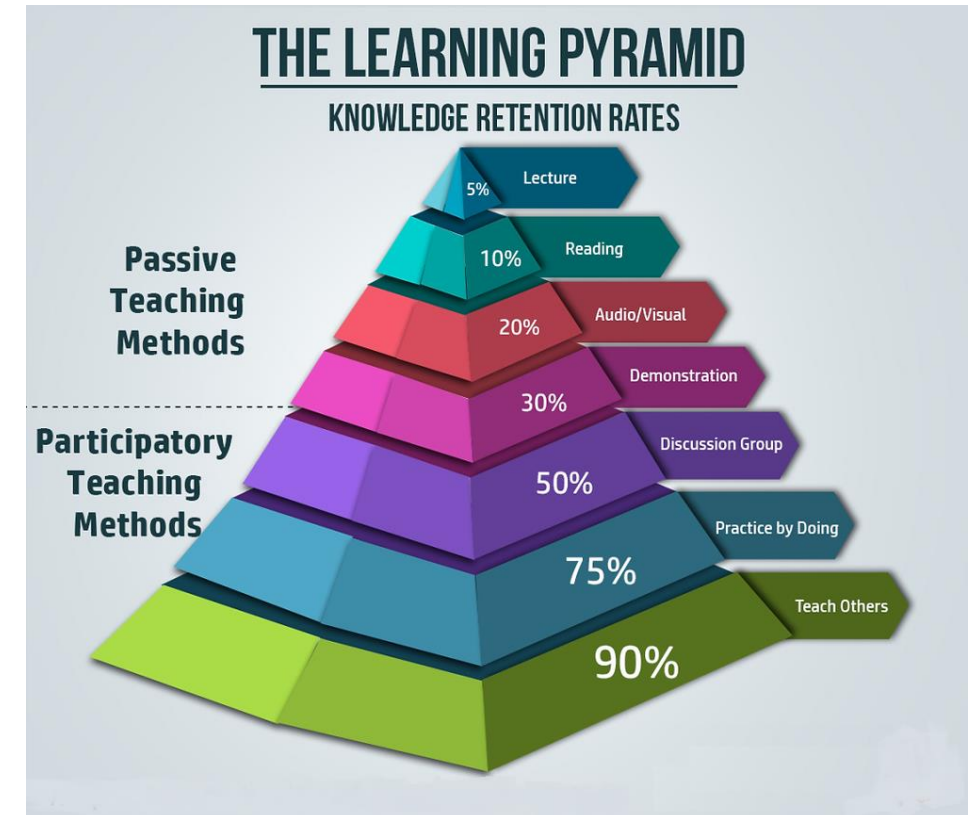
[Downloads](#)

AR/VR solutions can enhance classroom experiences and expand opportunities at all levels of learning. The federal government should support further innovation by investing in research, skill-building, content development, and equitable adoption of immersive technologies.

3D Models – Learner Benefits

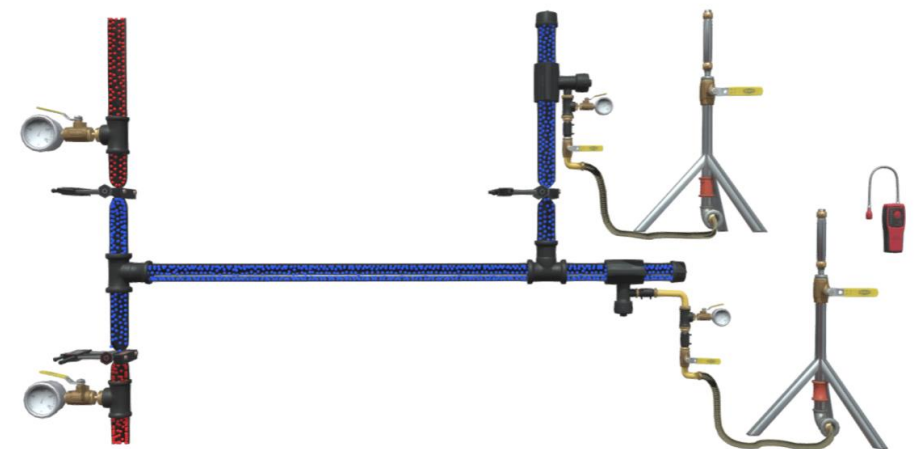
Benefits of Technology:

- Enhanced Engagement
- Improved Understanding
- Interactive Learning
- Realistic Simulations
- Personalized Learning
- Problem-Solving Skills
- Accessibility and Convenience
- Cost Effective



3D Models – Features and Capabilities

- Standard View
- Exploded View
- Cut-Away View
- Annotations
- Animation
- Narration
- Document Attachment (e.g., PDF)
- Video Attachment
- Photo Attachment
- Augmented Reality (AR)



3D Model – Use Cases

- Classroom Training
 - Tools
 - Equipment
 - Fittings
 - Devices
- Vehicle Inspections
- Equipment Inspections
- Procedures (e.g., Gas Purge, Inert Slug Purge, etc.)
- Facility Overview (e.g., Gate Station, Underground Vault, etc.)



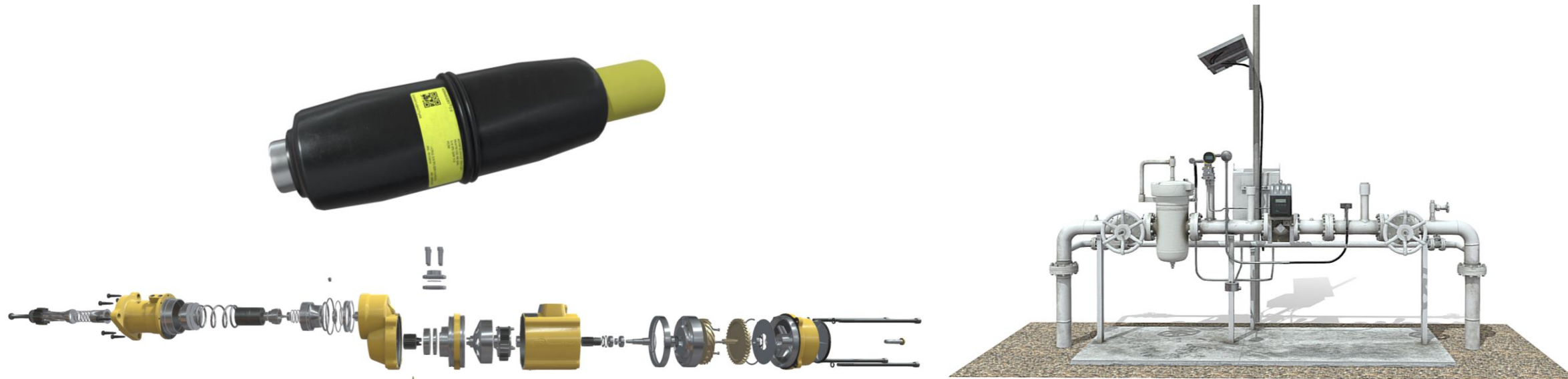
3D Model – Content Distribution

- Here is an example of GTI Energy's content distribution platform.
- Has the capability to manage different companies and the assets assigned to each company.
- Also, has the capability of uploading reference resources (e.g., images, documents, videos, etc.)



3D Model - Development Cost Example

- Overall costs for 3D model development is low compared to development costs to other types of training technologies (e.g., eLearning, VR, etc.)
- Cost vary depending on the complexity of the object (e.g., size, parts, etc.).
- Average development cost between \$1,000 and \$3,500 per object.





3D Live Demo

Open Forum

- Are you currently using 3D interactive models to assist with training company or contractor personnel?
- Is this your first time learning about the use of 3D interactive models to assist with training?
- What types of 3D models do you feel provide the most value for this training technology?
- If you were to deploy this training technology, what type of device would you use (e.g., mobile, tablet, computer, other)?



Training Programs for New Instructors

Here is a listing of **NEW** instructor led training programs in development for new trainers and supervisors.

- Instructor Fundamentals: Foundations for Effective Training (1 day)
- Innovative Training Technologies: Exploring Tools and Applications (2 hrs)
- Field Leadership Essentials: Developing Key Supervisory Skills (1 day)
- OQ Evaluator Training: Ensuring Operator Qualification Compliance (1 day)
- Welding Oversight Fundamentals: Essential Training for New Supervisors and Inspectors (4 hrs)
- Construction Oversight Essentials: Foundational Practices and Principles (1 day)
- Natural Gas Emergency Response: Make Safe Operations (1 day)

GTI Energy is Seeking.....

- Regional Host Sites for Instructor Led Training Programs
 - Retired Gas Operations Leaders to facilitate GTI Energy Training Programs
- Contact Ray Deatherage at rdeatherage@gti.energy for additional details.



Next Steps

- 3D Model Demo Link Sent to Attendees
- 3D Interactive Model Survey Sent to Attendees
- Next Meeting: Wednesday, September 4th @ 11am CST





GTI ENERGY

solutions that transform

Thank you for your participation today!

