



Immersive Learning: Looking into the Crystal Ball

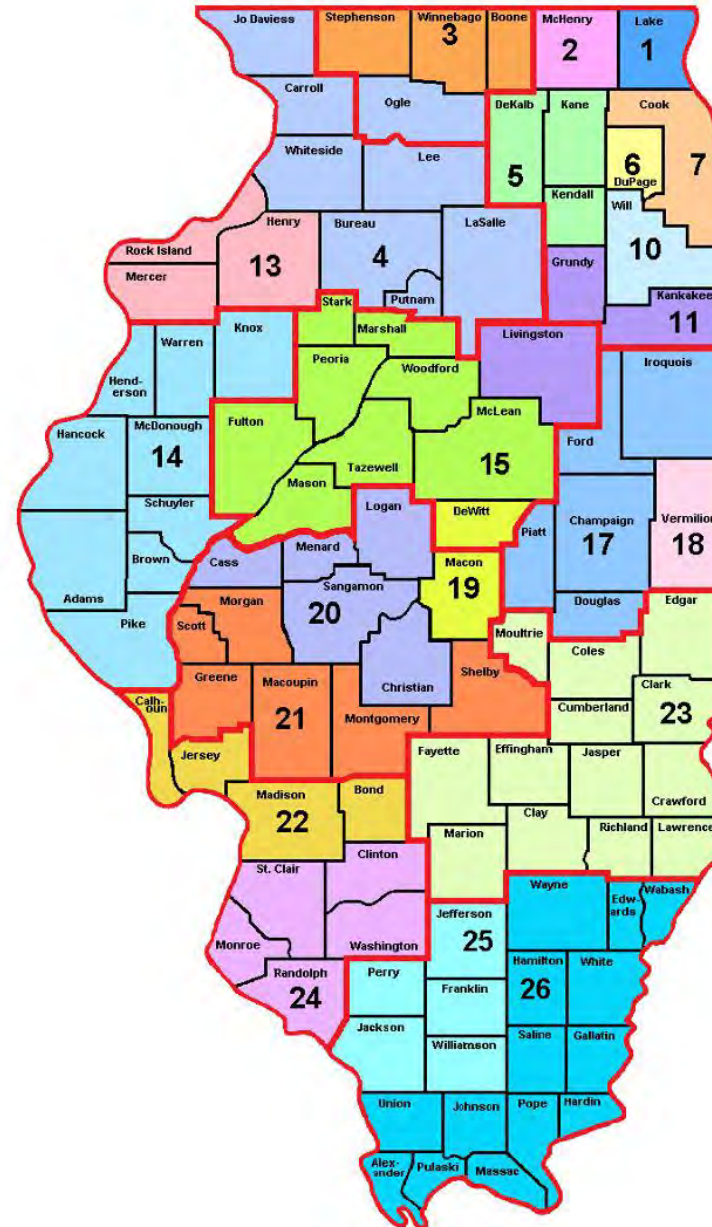
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Where is Your Local Area?



Which partner do you best represent?





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Background

- Over 44 years in industry and education experience
- Ph. D. in Applied Management and Decision Sciences
- MA and BA in Organizational Development, focused on its application in Information Technology and Business Management across several industries
- Eastern Michigan University
- Lawrence Technological University
- Baker College
- Black Hawk College

Poll

- What does Immersive Learning mean to you?
- <It would be nice if this could create a word cloud from the responses>

- Virtual and augmented reality are often associated with leisure, gaming or entertainment
- The professional applications are growing from:
 - Design
 - Telemedicine
 - Logistics
 - Front and back office processes
 - Operations,
 - Employee training, and
 - Training for greater customer support... to mention only a few

“Those people who develop the ability to continuously acquire new and better forms of knowledge that they can apply to their work and to their lives will be the movers and shakers in our society for the indefinite future” – Brian Tracy

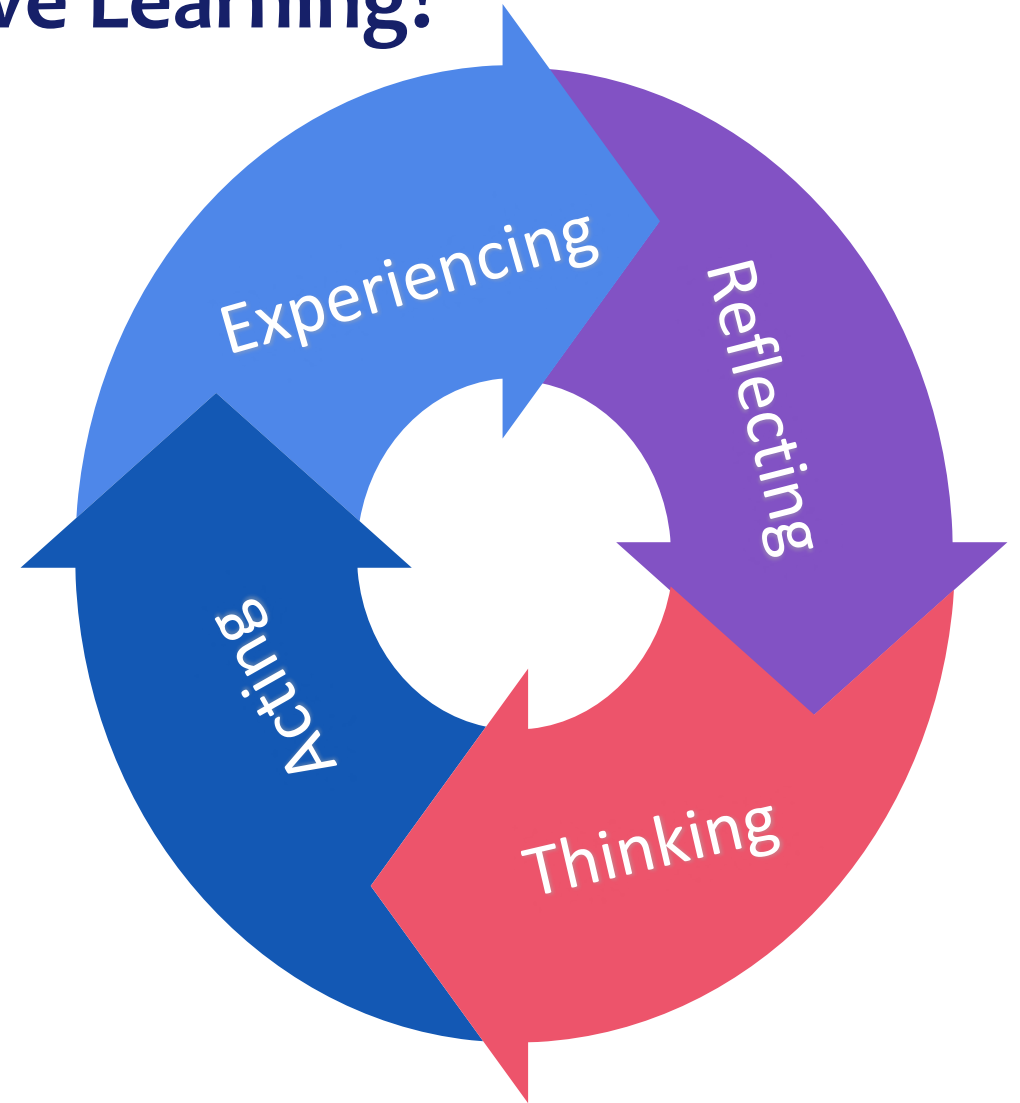


Objective

- Increase the discussion around immersive learning and its future off-spring

Experiential or Immersive Learning?

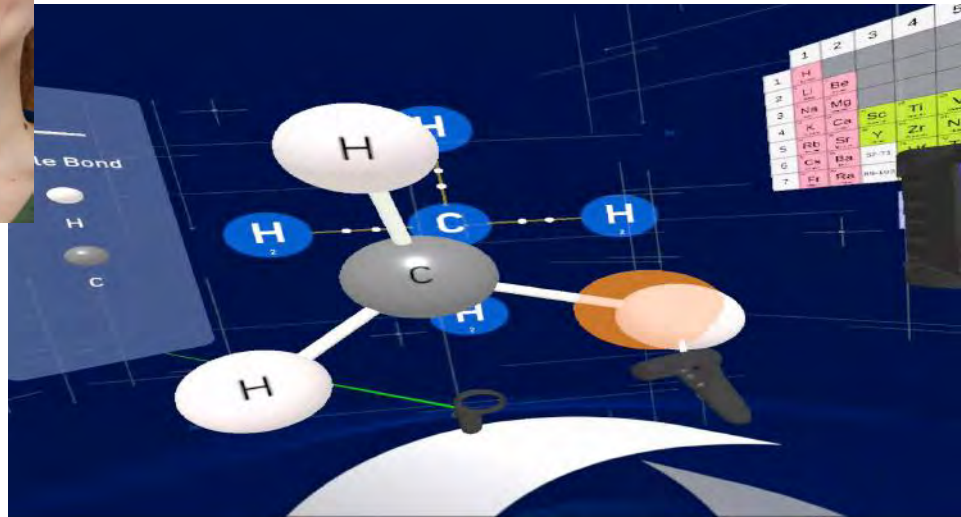
- Experiential Learning
- Immersive Learning



Benefits of Immersive Learning

- Hands-On approach; learning through practice and experience
- Student learning regardless of prior preparation
- Stimulates curiosity and motivation
- Mastery of the content and skills
- Helps to accelerate learning
- Assists students understanding of abstract and complex concepts
- Enhances and enriches the teaching experience (yes, Faculty can benefit too)
- Learning in a distraction free environment
- Develop collaborative and team-building skills
- The research themes land on the emotional and intellectual connections

Health Care and Science Programs



Nursing



- Scenarios based simulations and virtual labs
- Virtual clinical experiences that improve clinical judgement
 - Obstetrics and Pediatrics
 - Community Health
 - Medication Errors
 - Psychiatric / Mental Health
 - Call Light Distractions
 - Medical / Surgical
 - Emergency Department
 - ... and more

Anatomy



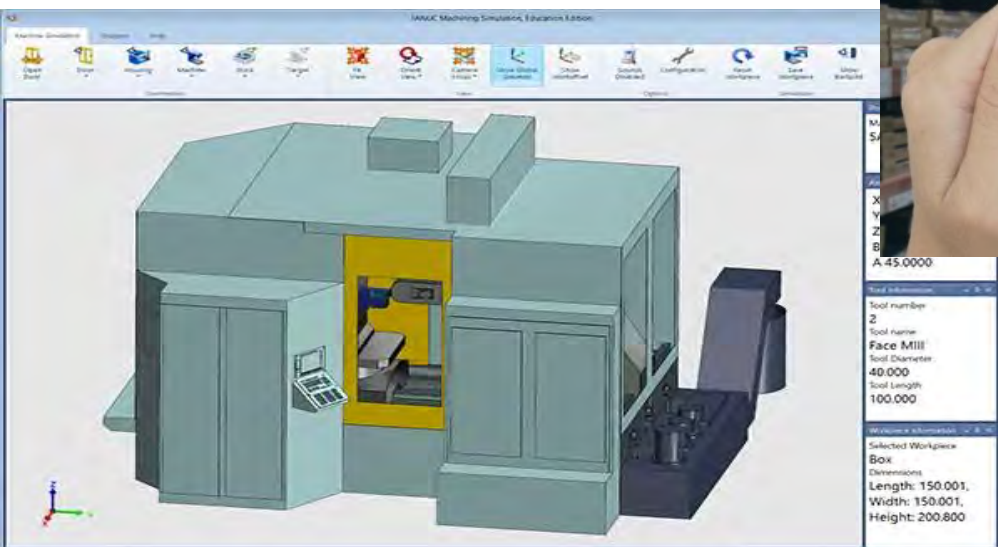
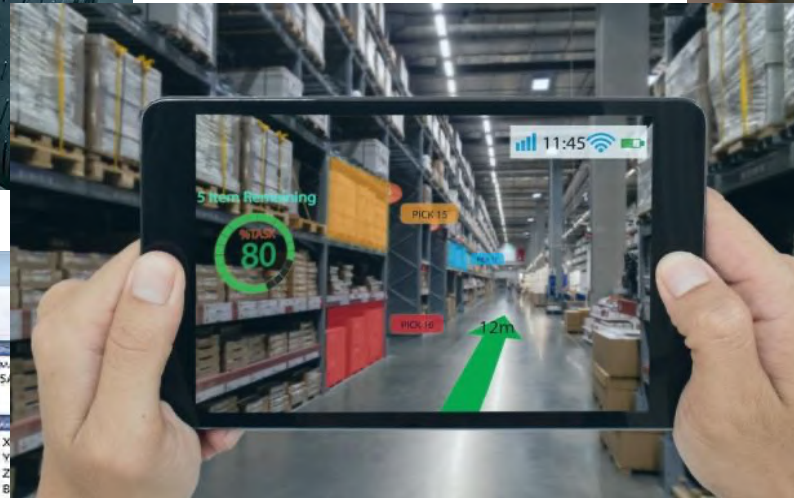
- Can bring clarity to the complexity of anatomy
- Students can rewind and review until they get it
- Ability to interact with the content helps with connection and retention
- Promotes stronger recall

Other Health Professions

- Physical Therapy
- Surgical Technician
- EMS
- Medical Assistant
- Patient Care Assistant
- CPR Training



Engineering, Manufacturing & Maintenance



Engineering



- From inception to manufacturing
 - Conceptualization
 - Interact with Design
 - Testing
 - Assembly
 - Manufacturing
- Increases motivation, interest and engagement
- Comprehension and Retention

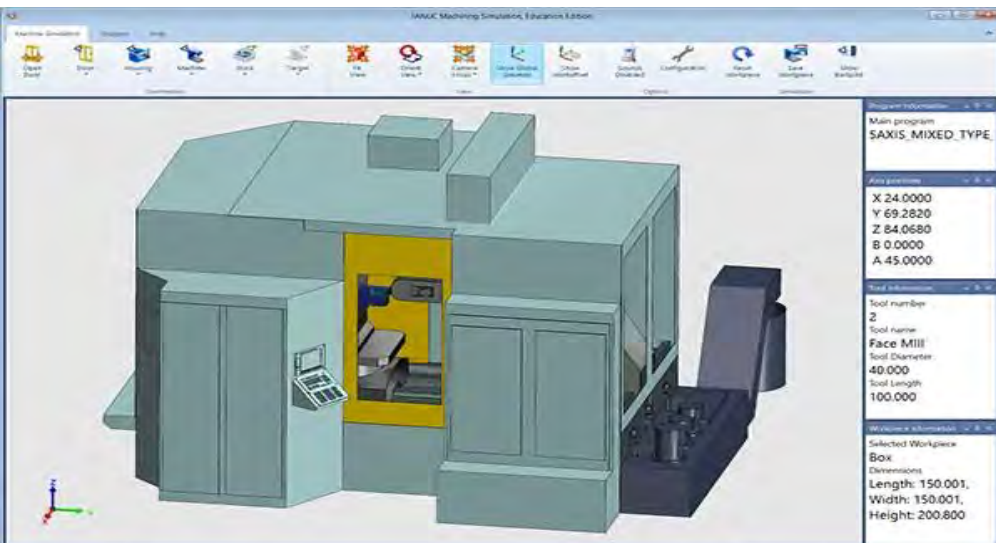
Industrial Maintenance

- Make mistakes without destroying equipment
- More fully trained prior to apprenticeship or internship
- Less downtime for training
- Students can immerse themselves in their future occupations
- Training can be done “on demand” for high-risk task before heading to the site



Manufacturing and Welding

- Skills development
- Reductions in material waste
- Can be projected on the safety glass removing the need for head gear
- Reduction of equipment downtime or failure
- Enables the student to better understand and simplify machine operation



Other Areas



Physical Fitness Education

- Increased interest in fitness
- Increased physical activity



Adult Education / Workforce Development

- Accelerates the acquisition of key foundational skills
- Greater recall of the content
- Improves communications and life management skills
- Timely, relevant, real-time, hands-on knowledge and experiences aligned to real work or life activities



Language Training

- Real life scenarios
- Flexible and authentic
- Interactive
- Builds greater confidence
- Cultural context and awareness
- Better recall and knowledge retention



Criminal Justice and First Responders



- Helps to hone critical skills
- Builds confidence
- Better situational awareness
- Builds stronger interpersonal skills with public

OSHA and Other Safety Training

- Fire Fighting
- Lockout-Tagout
- Fall Safety
- Ladder Safety
- Forklift
- Height Awareness



Still others

- Leveraging sounds, images, video, simulation, and others can provide a full sensory experience
- History
- Literature
- Psychology
- Automotive
- Logistics, Warehousing and Supply Chain
- ... and more



- Studies addressed that recall of content, skills, mastery and their potential occupations can be improved through:
 - Emotional
 - Intellectual
 - Behavioral
 - Self-efficacy
 - Confidence
 - ... and a sense of belonging and teamwork
- Immersive Learning embraces and fosters those connections
- The greater the connection mentally and emotionally the greater the retention and completion of students.

The silos will continue to fall

- The Crystal Ball
 - The short-term vs. the future
 - Education will not tie itself to monikers and silos of in-person/face-to-face, online, hybrid, etc.
 - We will only have learning. Learning through lecture, labs, texts, sensory, psychomotor, emotional, cognitive... we will experience learning fully.
 - Personalization and Adaptive Instruction: One size no longer fits
- A day made of glass 2 (3:12+)... a glimpse of what could be.

- Immersive learning and what replaces it will continue to:
 - Enhance teaching and learning
 - Assist students to be more active learners
 - Create more personalized education opportunities
 - Contribute to greater collaboration and team-building skills
 - Improve a students readiness for their occupation
 - Build their confidence and self-efficacy
 - ...and more

The use of immersive learning and associated technologies for higher education is still emerging, and remains the most under implemented and under-researched areas. Yet, offers considerable possibilities for instructors and students.



Questions

“Education is the passport to the future, for tomorrow belongs to those who prepare for it today.” – Malcolm X

“The best way to predict the future is to invent it” – Theodore Hook