Measuring the Effects of Active Learning on Health and Safety Training

By Laurie Wilson
Under the Microscope

• Measuring Effects of Active Learning vs. Traditional Lecture

• New Miners vs. Experienced Miners

• Transfer to The Workplace
What Does That Look Like?

- Validated Industry Competency Models
Analysis

The Mine Trainer

• Demographic considerations (i.e. English as a second language, low literacy, etc.);
• Learning styles;
• Adult learning principles; and
• Active learning.
Design

• Association for Talent Development (ATD)
• Department of Labor (DOL)
• Mining Industry Experts
Development

1. Who needs training?
2. What type of training do they need?
3. Does the training currently exist?
Implementation

Competency Model Clearing House
- Mine Trainer Competency Model
- Instructional Design Certificate Program
  1. Instructional Design Theory and Practice
  2. Instructional Development Practice
  3. Evaluating Learning
- Safety Professional Competency Model
Evaluation

- Research
- Incident Reports
- Changes in industry
What Does That Look Like?

- Standardized Training Curriculum
What Does That Look Like?

- A Very Good Day Game

**Area Card**

**Hazard Card**

Falls from heights

-3

**Control Card**

6
Results

• Over 4,000 Learners
• 60 Trainers
• Over 100,000 data points for serious games
Theory to Practice

• Break into groups of 4
Thank You

- lauriewilson@email.arizona.edu
- NIOSH U60 Grant