EMCIS MSHA Training

Fun, Not Funny
Who We Are
What We Do

• Provide MSHA Part 48 Classes
• Develop training programs for mine workers
• Promote and conduct mining health and safety research
• Collaborate with parallel industries
Training Strategy

• Provide participants with:
  • Knowledge of hazards
  • Risk reduction tools

• By utilizing:
  • Qualified training professionals
  • Interactive training content
  • Adult learning techniques
  • Auditory, visual and kinesthetic methods
The “Fun” of Engagement

• However...
  • Fun isn’t a measurement of learning
  • If someone says “this is fun”...
    • They are enjoying it and paying attention

There is a fine line between fun for fun’s sake and fun that actually enhances learning.
Context of Play and Learning

• Learning is enhanced by:
  • Structured play
  • Gamification
  • Hands-on activities
Don’t Get the Two Confused

Making it **FUN** ≠ Making them **LAUGH**
Know Your Audience

What you think is funny

May be insulting to others
OK, Now We’re Going to “Have Fun”

- Fun is subjective
  - It is not the #1 success factor
  - It is a by-product of the process

- Focus on engagement
  - Games
  - Interactivity
Why Games?

Regulatory mandated training can be dull. (No, really!)

Games increase learner engagement.

MSHA dictates the topics

EMCIS chooses the delivery

BUT
Game Objectives

Played in teams

Recall training & experience

Requires collaboration
Other Benefits of Games

• Time goes by quickly
• People move around
• Promotes competition and communication
• Easy to incorporate prizes
Challenges of Games

• Not everybody gets it
• Sore losers
• Avoiding the “Goldilocks” issue
  • Some questions are too hard
  • Some questions are too easy
  • Some questions are just right
Thank you to Asarco for the basic game board.
<table>
<thead>
<tr>
<th>Firefighting</th>
<th>Explosives</th>
<th>Welding</th>
<th>Electrical</th>
<th>Ventilation</th>
<th>Ground Control</th>
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Other Games

Different version of the same concept.

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Safety glasses must comply with which ANSI standard?
- A. 101
- B. Z358.1
- C. Z87.1
- D. Z89.1

Example Question

Random Question Board
Jenga

Four in the Hole
You Blew Up Our Haul Truck
Interactive Activities
On March 14, 2018, a miner sustained a fatal injury to his head while installing discharge chutes on the screen deck. The suspended chute shifted striking him.
Fatalgram Teachback

• Directions
  • Read through your group’s fatalgram
  • Make note of the important information
  • Discuss some “best practices” for prevention
  • Teach the class about your assigned Fatalgram

• After presentation
  • Compare groups response to MSHA’s Best Practices
Harry’s Hard Choices

- Same concept, different spin
- Harry doesn’t always make the right choices
- Some choices end in the death of the entire team
Group Exercises

Read scenario and answer the following questions:

1. Define the steps to perform the task safely
2. Identify the hazards encountered
3. Determine PPE requirements

Work in Groups
Example

A mill mechanic is assigned to service pump motors and to replace a pump in the reclaimed cyanide circuit from a heap leach pad.

1. What actions should the mechanic complete so he can safely complete the two repair tasks?

2. Identify the hazards that may be encountered in performing the tasks.

3. What PPE must be used?
Following Directions Exercise Sheet

1.  
2.  
3. MB PB BB  
4. OODRWWTS
Following Directions Exercise Key

1. MB   PB   BB

2. X E R O X

3. 

4. TWO WORDS
Hazard Cards
Rank the Hazards

Directions:
◦ Rank the hazard cards in your deck from most hazardous to least hazardous
◦ Be prepared to explain your rankings and suggest controls for the hazards
## Match Activity to Accomplishment

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>ACCOMPLISHMENT</th>
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<tbody>
<tr>
<td>Fatalgram Teachbacks</td>
<td>1. Applying knowledge</td>
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<tr>
<td>Group Exercises</td>
<td>2. Analyzing to determine cause and prevention</td>
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<tr>
<td>Communication Exercises</td>
<td>3. Recognizing and ranking hazards</td>
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<tr>
<td>Hazard Cards</td>
<td>4. Consequence thinking</td>
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<td>NIOSH Challenge</td>
<td>5. Importance of listening and clarifying instructions</td>
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<tr>
<td>Harry’s Hard Choices</td>
<td>6. Hazard recognition</td>
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</table>
First Aid Crossword Puzzle

ACROSS
1 The first thing you do when you come upon an accident
3 ____ only CPR most effective when you witness the event
6 The "B" in ABC
8 Type of fracture
11 What you check on unconscious victim
13 Type of wound where a body part is removed
14 A type of control for external bleeding
16 A superficial burn
17 The first stage of a heat emergency

DOWN
2 The "C" in ABC
4 Caused by insufficient oxygenated blood
5 Common injury caused by exposure to extreme cold
7 Analyzes heart's electrical rhythm and prompts shock delivery
9 Airway Obstruction
10 Evaluation sequence for a cardiac arrest victim
12 The acronym for determining a possible stroke
15 The "A" in ABC
Hands on Fire Extinguisher Training
Favorable Evaluation Results

Over 30 years of MSHA training and this is the best course in terms of techniques used, variety and interaction.

This is the 3rd year and has something different each time.
Unfavorable Evaluation Results

Not much actual instruction.

Some of the game questions could use some better defining. I did not agree with some of the interpretations, but it got the point across. So, mission accomplished.

Simplify the battleship game. Took extra setup time.
Lessons Learned

Interactive Training

- Is increased by
  - Keeping it fresh and new
  - Sharing real world experiences
- Increases safe behavior
- Leads to better quality training

[Image of checklist with 'Excellent' selected]
Questions?
Thank You!

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