# Team Dynamics and Development in Chemical Emergency Response

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# Objectives

**Dynamics**

**Development**

**Leadership**

Culture
Communication
Relationship

Skills
Models
Augment the Team

Style
Transaction
Transformation

# Our Campus



>2200 Employees

Represented ~70 Countries

~35 Different Languages

Strength in Diversity

Our Chemical Response Team

ESH&Q, Research, Operations, Facilities, OHS

~47 team members

Science, Engineering, Business

Focus on skillsets

ESH&Q

Integrated Research Operations

Literature Review & Benchmarking

# Team Dynamics & Culture

Beliefs, Values, Customs, & Behaviors

xCultural Communication

Form, Goals, Responsibilities, Interdependence

# Team Dynamics & Culture

Beliefs, Values ... Cultural ... Form, Goals

Command       Functional       Task Cohesion

Behaviors ... Interdependence

# Team Clarity



Individual vs. Team
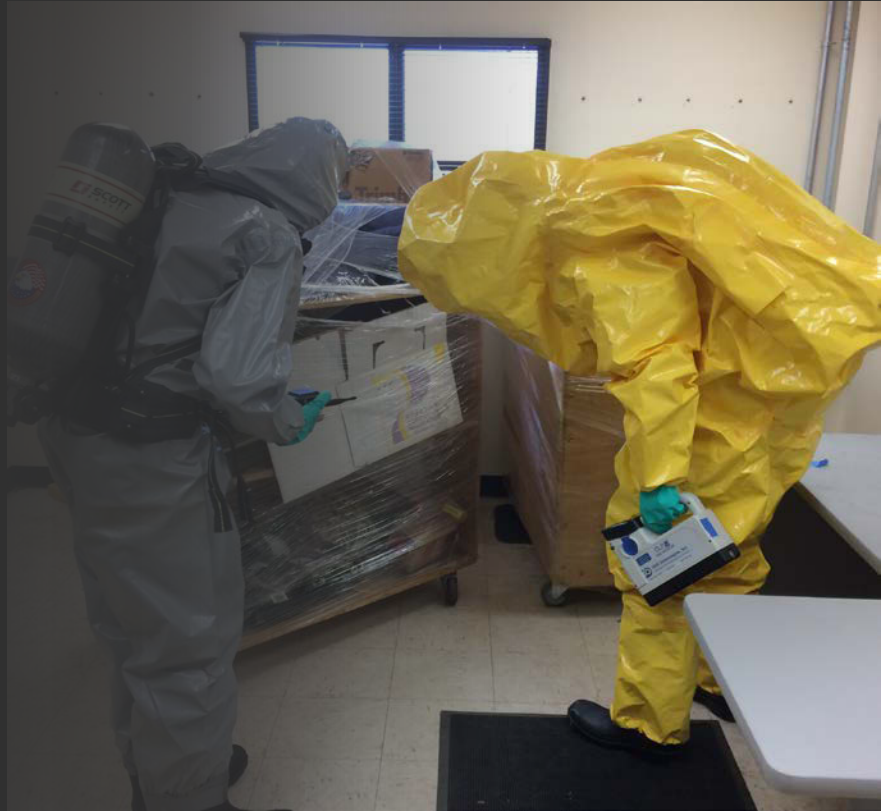
Do vs. Direct Roles and Responsibilities

Process vs. Detail

Usable SOPs

Team Relationships

# Team Application

- Clear expectations
- Commitment
- Skills
- Leadership
- Collaboratory
- Creativity/Problem Solving
- Self & Shared Leadership
- Informality/Comfort

## Incorporation

- Tools and SOPs easily navigated in an emergency
- Communication synchronization

# Incorporation

- Culture-Organization-Individual
- Mindful of team needs
- Ambiguity vs Process
- Challenge-Risk-Development

Development

Practical

Results

Expectations

Experience

Adult Learning Integration

## Development

Practical     Results     Expectations     Experience
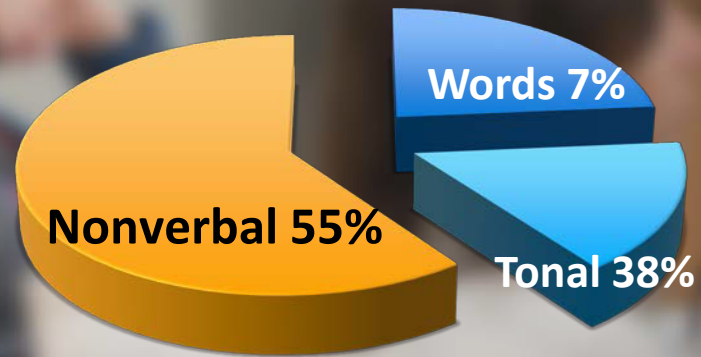
ADDIE
Brainstorm-VPD-SCAMPER-Storyboard
Information Mapping
Preconceptions vs. Experience

Adult Learning Integration

# Development

Communication Implications
- Channels
- Feedback

**Words 7%**

**Nonverbal 55%**

**Tonal 38%**

# Development

Behavioral > Cognitive > Psychomotor

Self vs. expert assessment
Differing criticality = delays & limited opportunity for suggestions

# Development

- Roadblocks to Information
  - Already know
  - Make decision independently
  - Highly similar personnel

# Forge Partnerships

- Colorado Department of Public Health & Environment
- Colorado Emergency Planning Commission
- Local Emergency Planning Commission
- EPA Region VIII
- DHS
- 8th Civil Support Team
- Other National Labs
- Local Emergency Responders

# Training & Development

- Annual refresher vs. monthly training
  - Assessment, Design, Development, Implementation, Evaluation
  - Qualitative assessments, performance drivers
- Quarterly exercises
  - Full campus exercise
  - Targeted operations focus
- Academic vs. hands-on
  - Foundation
  - Challenge in development

# Training & Development

- Case studies, tabletops, games
  - Guided discussion
- Integrated command and control into all exercises
  - Communications
- Voluntary professional development
  - CAMEO Suite, Waterborne mitigation, WMD, CFATs, ECBC, etc.

# Training & Development

- Improving Processes
  - Debrief/Hot Wash
  - Yearly integrated exercise by DOE
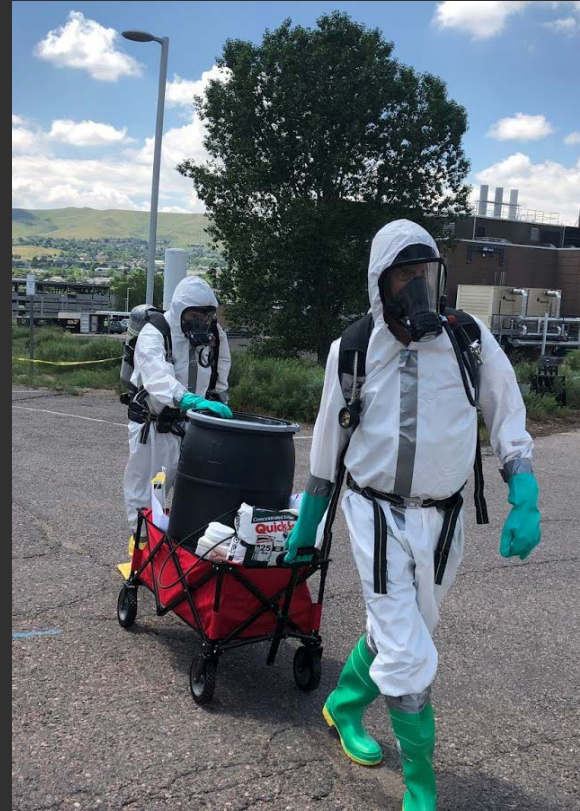  - Yearly Review

# Do you manage or do you lead?

Don't treat everyone the same
Balance between empathetic and assertive
Authentic

# Leadership - Set the Path

- Screening potential team members
  - Foundational training
- Expectations
- Onboarding
- Aligning with principles
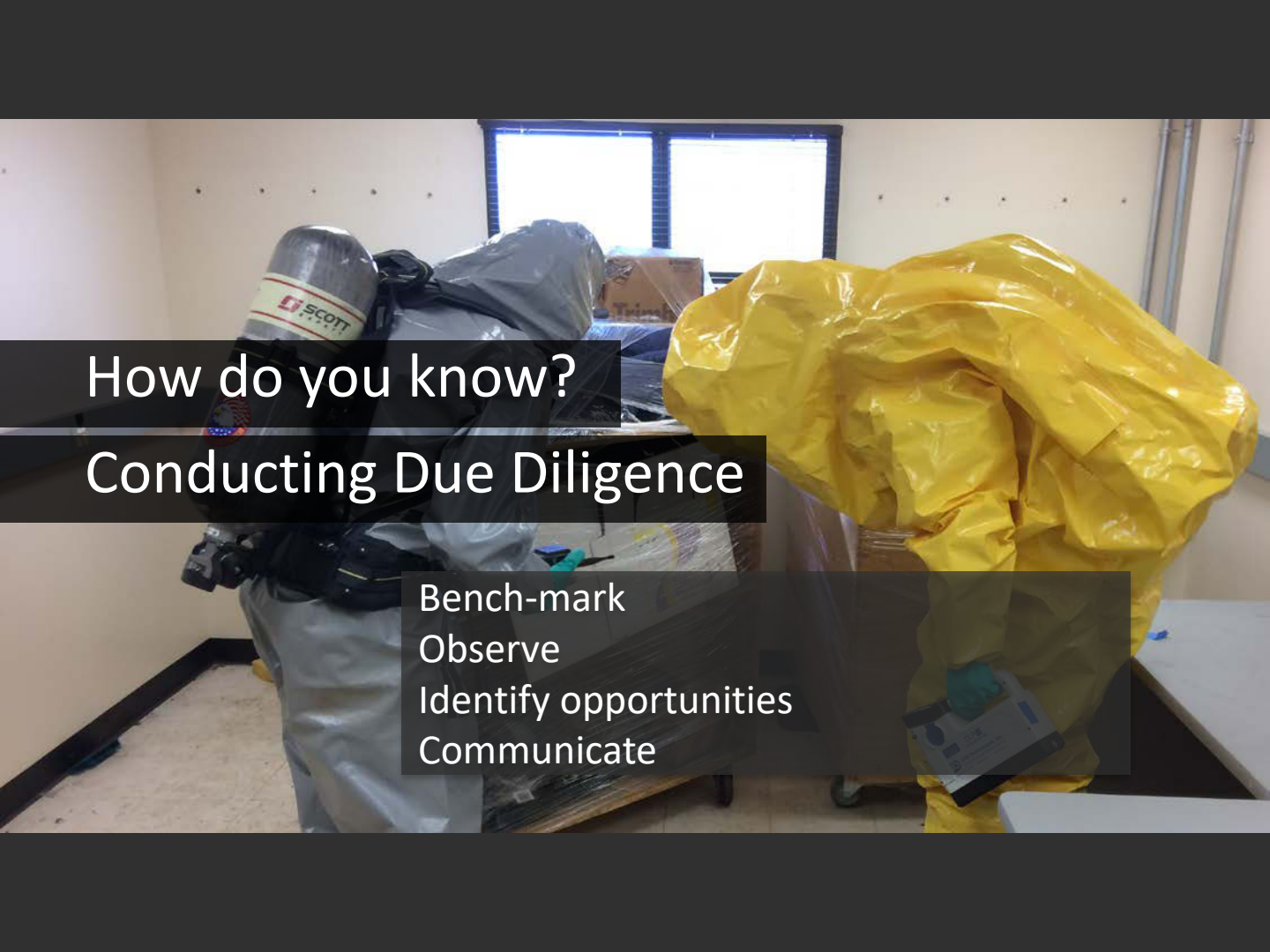- Learn and understand
- Promote

# Leading Verification and Qualification

- Expectations
- Required Training Plan
- Team-Specific Orientation
- Verify Understanding
- Knowledge, Skills, Abilities

The Team Member

Education

Training
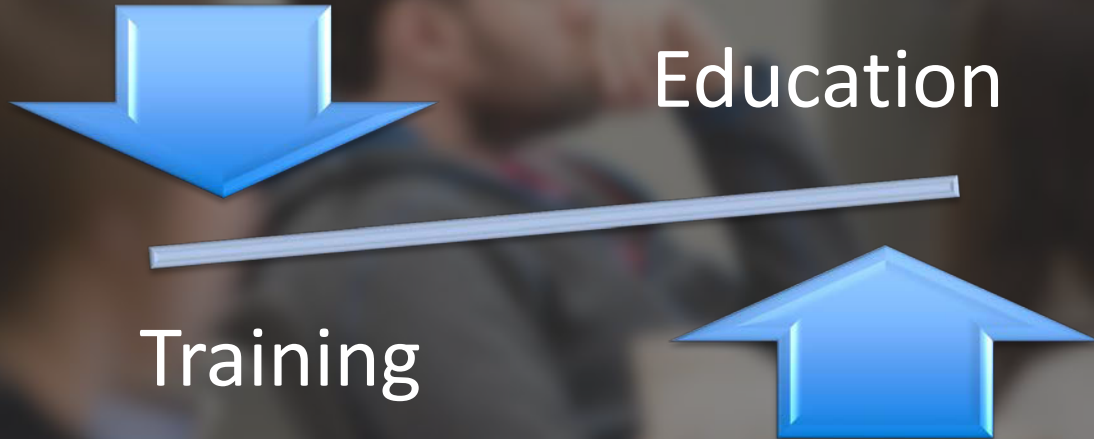
How do you know?

Conducting Due Diligence

Bench-mark
Observe
Identify opportunities
Communicate

# Leadership

- We set the stage with our actions
- Our team members are watching
- They learn from our behavior
- If we don't walk the talk, who will?
- What happens if you don't set a positive example?

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# Q & A

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