

Evaluation Plan for the Gulf Oil Spill Response Training: A Multiple Stakeholder Approach

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Learning Objectives

- Describe the **evaluation plan** developed to evaluate the Gulf Oil Spill (GOS) safety training effectiveness
- Discuss the **implications** of using this evaluation system in assessing the effectiveness of training

Gulf of Mexico Oil Spill Safety Training

- **British Petroleum** developed and presented **safety training** prior and during the **Deepwater Horizon Oil Spill** clean-up effort
- Training was presented to more than **147,000 workers and volunteers** across **4 states**
- **Alternate formats** per worker demographics (e.g., language, occupation, location)

Goals of GOS Safety Training

- **Training Goals:**
 - Knowledge about potential hazards and mitigation strategies to be performed
 - Minimize potential exposure to hazards to themselves, coworkers, and public
 - Empower to identify and mitigate hazards while performing tasks
- **GOS Training Intended Outcome:**
 - Rapid and efficient mitigation of continued environmental contamination while ensuring minimal impact to public health

GOS Safety Training Evaluation

Goal: To assess the effectiveness of the GOS training on training-related outcomes

Level 1: Reactions (satisfaction/relevance)

Level 2: Learning (knowledge/skills)

Level 3: Behaviors (clean-up activities)

Level 4: Results (illnesses/injuries)

General Purpose of GOS Safety Training Evaluation

- Evaluate **effectiveness** of the **GOS Safety Training** in meeting the NIEHS objectives
- Identify **lessons learned/best practices**
- Identify **policies** related to ensuring workers receive effective training prior to deployment
 - language, literacy, cultural issues

360 Degree Evaluation/Feedback

- Very popular in private industry
- Multiple rater (**multi-source**) system
- Information from one source is **supplemented with another source**
- **Qualitative** (process) and **quantitative** (outcome) data gathered
- Results are **integrated**
- More **thorough** and **accurate** depiction

Sources for 360° Evaluation



Multiple Stakeholder Evaluation

- **Workers/volunteers:** questionnaires (written and electronic) and focus groups with selected subset
- **Trainers:** questionnaires (electronic) and follow-up focus group
- **Supervisors:** questionnaires (electronic)
- **Employers:** questionnaires (electronic)

Sample Items Gathered Across Stakeholders

The training **OVERALL** was effective?

1 = Strongly Disagree

2 = Disagree

3 = Somewhat Disagree

4 = Neither Agree nor Disagree

5 = Somewhat Agree

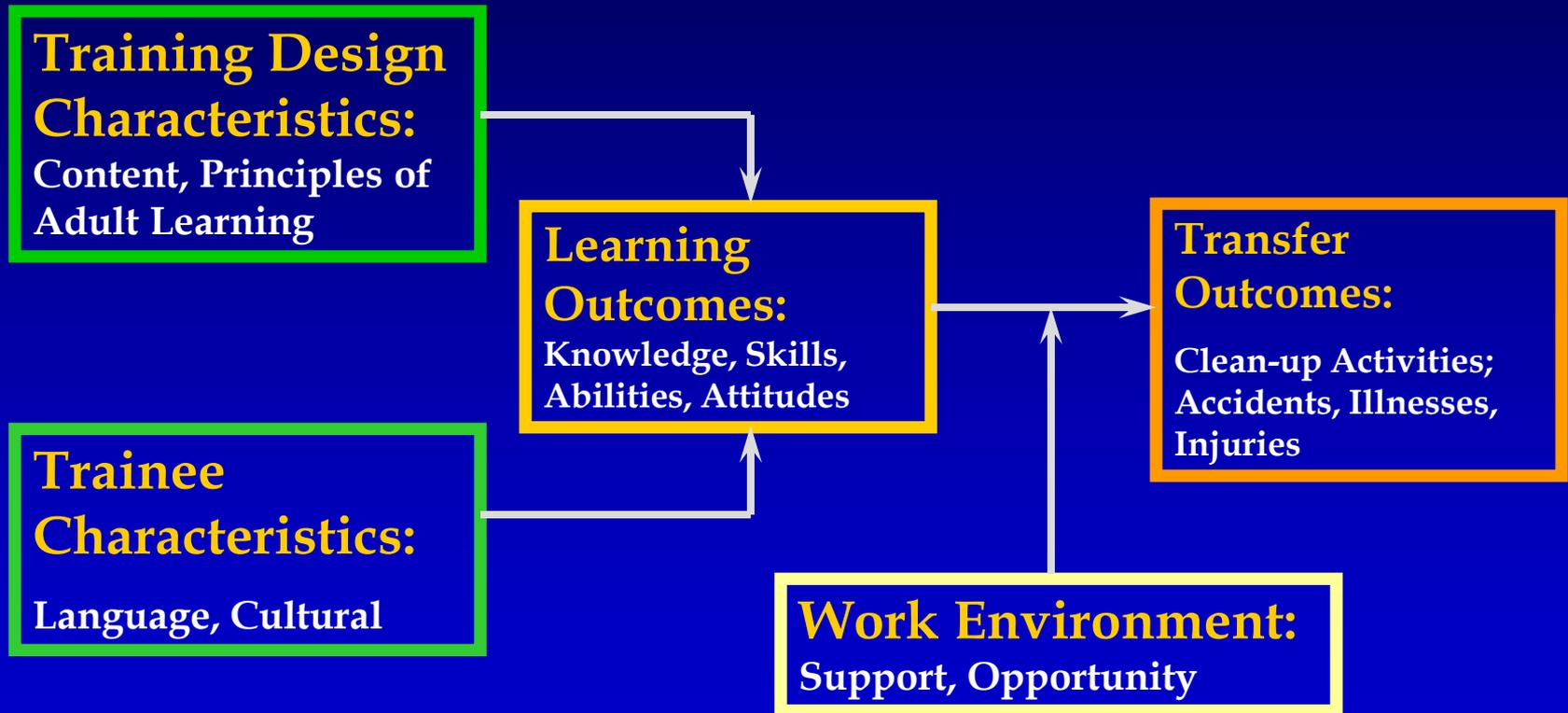
6 = Agree

7 = Strongly Agree

Sample Open-ended Item Gathered Across Stakeholders

- **Which aspects** of the training provided by are the **MOST effective** in preparing workers for environmental clean-up activities? Why?
- **Which aspects** of the training provided by are the **LEAST effective** in preparing workers for environmental clean-up activities? Why?

Characteristics Affecting Training Outcomes



Adapted from Baldwin & Ford (1988)

Lessons Learned

- Gives all **program stakeholders** a **voice** in system
- Encourages **communication** among stakeholders
- Great deal of **cooperation** and **buy-in** needed
- Multiple **stakeholders** = Multiple **methods**
- **Qualitative** (Process) and **Quantitative** (Outcome) results are **integrated**
- **Use** the results for **program improvement**

Steps in the Process

- **Pilot conducted on workers**
 - » **Deep South Center for Environmental Justice** located at **Dillard University** in **New Orleans, Louisiana (NIEHS Grantee)**
 - » **Boat People SOS community group** in **Bayou La Batre, Alabama (Vietnamese-American community group)**
- **Pilot conducted on instructors**
 - **15-20 minute written questionnaire**
 - **Follow-up focus group**

Questions

