

# EVALUATING SAFETY MESSAGES & TRAINING

## Purpose

The purpose of this module is to acquaint participants with benefits, levels, types, and elements for measuring the effectiveness of safety messages and training through evaluation. The relationship of testing to safety training program evaluation is also addressed.

## Objectives

After completing this module, participants will be able to:

- Identify the benefits of measuring the effectiveness of a safety message or training program.
- Recognize the levels, types/methods, and elements of training evaluation.
- Recognize the relationship between testing and evaluation.
- Identify 2 training evaluation actions to implement at their workplace, as well as potential barriers to these actions and how to overcome these barriers.

## Time

30 minutes: 3:25 to 3:55 PM

### Agenda (Instructional Strategy and Content Outline)

The following topics and activities are covered in this module. An estimate of the time needed to cover each section of the module appears in parentheses.

1. Module Introduction (1 minute)
2. Introduction to Evaluation of Safety Messages and Training (5 minutes)
  - A. Large Group Discussion: Benefits of Evaluating Safety Messages and Training (3 minutes)
  - B. Introduction of Evaluation (2 minutes)
3. Levels of Evaluation (11 minutes)
  - A. Large Group Discussion: What Prevents Us From Evaluating Our Safety Efforts? (2 minutes)
  - B. Overview of Evaluation Levels (4 minutes)
  - C. Large Group Discussion: Applying Evaluation Levels to Your Safety Efforts (5 minutes)
4. Sample Elements of an Evaluation (6 minutes)
5. Testing and Evaluation (3 minutes)
6. Individual Activity: Planning for Your Small Business (3 minutes)
7. Summary and Transition to Module 6 (1 minute)

### Materials and Equipment

- Participant Guide and Facilitator Guide
- Flipchart, markers, and tape
- Laptop or personal computer (PC) and LCD projector with wireless remote or projector
- 11 PowerPoint slides

### Suggestions for Time Management

- Start promptly on time.
- Watch the clock closely in managing discussions during this module. While there is no formal activity in this module, there are questions embedded to encourage discussions about evaluation.

## Cues

**PPT 5-1**

**1-Minute  
Presentation**

**PPT 5-2**

**Remind  
participants this  
is a very short  
module and is  
intended only as  
an introduction to  
evaluation**

## Presentations and Activities

### 1. Module Introduction (1 minute)

- Start this module at the scheduled time.
- Show PPT 5-1.
- Ask participants to turn to Page 1 of this module.
- Conduct a 1-minute general introduction to this module.
- Show PPT 5-2.
- Briefly review the purpose and objectives of this module.
- Remind participants that this is a very short module and is intended only as an introduction to evaluation.
- Emphasize the important role that evaluation plays in measuring the effectiveness of safety communication and training by starting the module with the following comments:
  - The purpose of this module is to acquaint you with benefits, levels, types, and elements for measuring the effectiveness of safety messages and training through evaluation.
  - The relationship of testing to safety training program evaluation is also addressed.
  - We will also have time to identify training evaluation actions you can implement at your workplace, as well as potential barriers to these actions and how to overcome these barriers.
- Remind participants to ask questions if they need clarification.

|   |  |
|---|--|
| <b>3-Minute Large Group Discussion</b>  | <b>2. Introduction to Evaluation of Safety Messages &amp; Training (5 minutes)</b>   |
| <b>PPT 5-3</b>  | <ul style="list-style-type: none"><li>■ Ask participants to turn to Page 3.</li><li>■ Introduce the topic of evaluation with a group brainstorm.</li></ul>   |
| <b>Question</b>   | <ul style="list-style-type: none"><li>■ Show PPT 5-3.</li><li>■ Start a large group discussion (brainstorm) by asking: <i>What are the benefits of evaluating safety communication and training to you and your organization?</i></li></ul>  |
| <b>Record ideas on a flipchart</b>  | <ul style="list-style-type: none"><li>■ Write the benefits of evaluation on a flipchart as participants share them.</li></ul>  |
| <b>2-Minute Presentation</b>  | <ul style="list-style-type: none"><li>■ Transition to the purpose of evaluation. Note that points in the purpose are similar to/the same as some of the benefits that were brainstormed by participants.</li></ul>   |
| <b>PPT 5-4</b>  | <ul style="list-style-type: none"><li>■ Show PPT 5-4.</li><li>■ Make the following points:<ul style="list-style-type: none"><li>– Evaluation is a process used to measure the value and effectiveness of a learning program.</li><li>– Ideally, a safety professional should evaluate the entire training process (from concept to post-delivery) and how effective it is in achieving objectives by getting feedback from all those involved in every aspect of the training.</li></ul></li></ul> |
| <b>Emphasize that OSHA requires verifying retention of some Standards, such as PPE.</b> | <ul style="list-style-type: none"><li>■ Emphasize that OSHA requires verifying retention of some Standards, such as PPE.</li></ul>   |

**2-Minute Large Group Discussion****PPT 5-5****Question****PPT 5-6****4-Minute Presentation****3. Levels of Evaluation (11 minutes)**

- Ask participants to turn to Page 4.
- Introduce the levels of evaluation with a question.
- Show PPT 5-5.
- Start a short large group discussion by asking: *What prevents us from evaluating our safety efforts?*
- Have 2 participants share responses before making the following points:
  - While we can clearly understand the benefits and purpose of evaluating safety communication and training, it takes time, money, and other resources to create a solid evaluation plan and tools to support it.
  - Defining reasons why your business wants to evaluate safety training, options you have available, and resources you want and are able to expend will help you create a workable plan to gain valuable information about results.
- Show PPT 5-6.
- Transition to the levels of evaluation by making the following points:
  - Defining specific reasons why your business wants to evaluate safety communication and training is one of the first steps to creating a workable evaluation plan.
  - In other words, identify your business objectives for your evaluation. (Highlight the questions to ask in this step in the Participant Guide as time permits.)
- Introduce the Four Level Evaluation Model originated by Donald Kirkpatrick (1994) that can provide a basis for defining business objectives for evaluation.
- Ask participants to turn to Page 5.

**Emphasize that the calculation is very basic – there are many different equations and methods to determine ROI**

**Emphasize this course is limited by time/provides an intro. Recommend continuous learning**

**PPT 5-7**

**2-Minute Large Group Discussion**

**Question**

- Briefly highlight key points about each of the 4 levels:
  - Reaction
  - Learning
  - Behavior/performance
  - Results/impact.
- Ask participants to turn to Page 6.
- Briefly highlight key points about Level 4 (and beyond) and ROI.
- Review the calculation to determine ROI of a learning program. Emphasize that the calculation is very basic and that there are many different equations and methods that can be used to determine ROI.
- Explain that defining and measuring **ALL** related costs and isolating **ALL** financial benefits is a challenging, but valuable process. Consider all benefits, including those related to incidents and those not traditionally measured by financial worth.
- Emphasize that while this course is limited by time to provide an introduction to these concepts, many models/approaches to determine training results exist in literature. Special training programs are also offered to specifically address evaluation.
- Show PPT 5-7.
- Encourage participants to link the levels of evaluation to their own business efforts in safety by asking: *How can you apply the levels of evaluation to safety efforts at your business?*
- Have 2 participants share responses before presenting sample elements of an evaluation.

**6-Minute  
Presentation****PPT 5-8****Remind  
participants to  
always consider  
using rating  
scales in an  
evaluation design****4. Sample Elements of an Evaluation (6 minutes)**

- Ask participants to turn to Page 7.
- Tell participants that you will now present points about “what” to evaluate.
- Show PPT 5-8.
- Emphasize that the focus of the evaluation and related questions will relate to the corresponding part of the overall process you want to evaluate.
- Introduce the sample elements identified in the chart for use in a post-program evaluation focusing on reaction and learning (Levels 1 and 2).
- Remind participants to always consider using rating scales in your evaluation design, where possible, to reduce the amount of writing required by participants.
- Briefly review the following elements:
  - Training facility/site
  - Media, methods, tools
  - Program content and material
  - Facilitator(s)
  - Objectives
  - Ability to perform a job before and after training
  - What is your OVERALL opinion of the training program?
- Ask participants to turn to Pages 9-10.
- Briefly review the sample evaluation, as time permits.

### 3-Minute Presentation

**Emphasize that testing results provide you with valuable evaluation data**

### PPT 5-9

## 5. Testing and Evaluation (3 minutes)

- Ask participants to turn to Page 11.
- Tell participants that you will now present points about “what” to evaluate. Emphasize that the results of testing provide you with valuable evaluation data.
- Remind participants that “testing” was briefly discussed earlier in the program during the discussion on performance objectives.
- Show PPT 5-9.
- Present the definition of performance testing –A performance test measures if learners have met the standard of performance set by the learning objective.
- Highlight key points about types of tests:
  - **Knowledge-based** tests measure knowledge gained by the end of the course. Objective questions such as multiple choice, fill-in-the-blank, T/F, short answers, or matching generally comprise a knowledge-based test.
  - **Skills-based/application tests** require participants to demonstrate an action correctly and/or apply newly learned knowledge and skills to a realistic scenario, challenging questions, or end-of-course action planning activity.
  - **Attitudinal tests/scales** measure attitude change that occurs as a result of training. Rating scales (such as Likert), behavior indicators, and emotional indicators generally comprise an attitudinal test.
- Ask participants to turn to Page 12.



**PPT 5-10**

- Highlight key points about types of testing tools:
  - **Pre-tests** measure how well learners can perform objectives prior to training. Pre-tests are sometimes optional and often provided as a means for learners to identify how much they know before starting a training. In other situations, pre-test (combined with post-test) results are used to assess learning progress made by an individual or class.
  - **Review tests** measure how well learners can perform the objectives while training is in progress. Learners take review tests during training to determine when they are ready to move on to the next objective (topic or task). Review tests often take the form of activities or exercises.
  - **Post-tests** measure how well the learners can perform the objectives after training. Post-tests should test on the same topics as in the pre-test.
- Show PPT 5-10.
- Close the section on testing and evaluation by telling participants that when designing training, they will need to decide when to use pre-tests, review tests, and post-tests to measure learner performance.
- Make the points that tests are highly recommended when the:
  - Training and testing is required and/or involves a certification or qualification process.
  - Organizational culture supports its use.
  - Risks of not mastering objectives may include injury, death, or significant financial loss. (i.e. We “need” to test to ensure that behavior change has occurred.)

**3-Minute  
Individual  
Activity****PPT 5-11****Question****6. Individual Activity: Planning for Your Small Business  
(3 minutes)**

- Ask participants to turn to Page 13.
- Facilitate a 3-minute individual activity.
- Remind participants that it is time for them to determine how they will use what they have learned in this module on their jobs.
- Show PPT 5-11.
- Ask participants: *How can you use evaluation to help you improve safety communication and training at your organization?*
- Review the directions for the activity and possible actions.
- Allow time for participants to work individually on identifying actions, potential barriers, and how to overcome barriers.
- As time permits, ask participants to share some of their actions.

**1-Minute  
Summary and  
Transition****No Break****7. Summary and Transition to Module 6 (1 minute)**

- Highlight a few of the key points from this module as you summarize this section. Use the objectives as a guide to emphasize important points.
- Tell participants that you will now begin the last module that focuses on planning for safety communication and training techniques at their business and closing activities. In the closing activities, they will assess progress on their learning goal and complete a program evaluation.
- There is no break after this module.

