



## The Four Levels of Evaluation

This multi-level approach to evaluation examines training outcomes against four general criteria: reaction, learning, application, and organizational goals. These criteria, or levels, are applied to make qualitative and quantitative judgments about the effectiveness of training.

### Level 1: Reaction Evaluation

- Definition
- Tells what participants “felt” about the training experience.
  - Focuses on training success as perceived by trainees upon completion of formal training.
- Tools
- Instruments used in reaction evaluation assess reactions to (or attitudes about):
- General and specific course content
  - Instructor effectiveness
  - Facilities
  - Overall training effectiveness
- Application
- Results quantify participants' degree of satisfaction with a program's design and delivery.
  - Crucial information because dissatisfaction with the learning experience can:
    - Inhibit application on the job
    - Negatively bias others from participating in the training

### Level 2: Learning Evaluation

- Definition
- Tells what participants learned during the training.
  - Measures discrete subject-matter skills and knowledge acquired as a result of the training.
- Tools
- Typical evaluation instruments include:
    - Paper-and-pencil tests
    - PC-based tests
    - Observed simulations
    - Behavioral skill demonstrations
  - Typical experimental designs allow for comparison of pre- and post-test scores.
- Application
- Results quantify degree to which stated training objectives are met.
  - Results function as a type of quality-assurance index for training.

### Level 3: Application Evaluation

- Definition
- Tells whether participants are using what they learned on the job.
    - Measures extent to which skills and knowledge acquired during training are successfully transferred to the job and sustained over time.
  - Many non-training-related factors can contribute to skill decay and limited transfer, so Level 3 evaluations must also be sensitive to:
    - Individual attitudes and motivation
    - Organizational environment
    - Most importantly, to the relevance of the training to the job
- Tools
- Instruments include:
    - Assessments of pre-training skills, knowledge, and attitude
    - Assessment of transfer-of-training, which is measured at several points following completion of training
  - Tools measure both overt, observable behavior *and* non-observable behavior (such as problem-solving techniques or commitment).
- Application
- An ultimate test of training effectiveness.
  - Acquisition of skills, assessed in Level 2 evaluation, is in itself no guarantee of skill transfer to the job.

### Level 4: Impact or Organizational Goals Evaluation

- Definition
- Assesses the organization's return on investment and the extent to which goals defined before training are met.
    - Organizational goals may include increases in productivity, revenue, and/or quality; reduced turnover; etc.
  - This level seeks to quantify the return on investment by determining the ratio of training costs to organizational returns.
- Tools
- Operationally defined goals and training costs are tracked.
    - We define return on investment (ROI) as operational results expressed in dollars divided by training costs.
- $$\text{ROI} = \frac{\text{Return}}{\text{Investment}} = \frac{\$ \text{ Operational Results}}{\$ \text{ Training Costs}}$$
- Operational results are determined by:
    - Working with our client to determine desired operational results
    - Defining the “yardstick” for measuring the operational factors
    - Identifying the causal link between the training intervention and the desired operational results
- Application
- Results are used to justify that training has led to a monetary return on investment to the organization.