



ESTABLISHING ONGOING TRAINING COURSE MEASUREMENT AND MAINTENANCE

OVERVIEW

Training leads should establish and implement ongoing measurement and maintenance processes in order to sustain effective training. Course maintenance processes govern how materials and equipment will be stored and how training content will be reviewed and refreshed. Measurement data arms training leads with the information required to make decisions related to when and how course content should be updated over time. Continuous data monitoring of quantitative and qualitative data from learners, their supervisors and instructors can identify whether learning and organizational objectives continue to be met, and if not, what changes should be made.

TRAINING COURSE MEASUREMENT

Training outcomes should be evaluated to determine what changes may be required to sustain effective training. The Kirkpatrick Model, depicted in Figure 1, provides a framework for determining the extent to which learning objectives have been met and what collected data at each level may indicate. As levels of evaluation progress from one to four, time, effort and cost increase.

Kirkpatrick Level		Description	Data Collection Methods	Why Measure
Level 1	Reaction	The degree to which participants react favorably to the training.	Course evaluation forms, verbal feedback, post-training surveys, increased participants through referrals.	Collected data may indicate concepts that require additional training or learning reinforcement.
Level 2	Learning	The degree to which participants acquire the intended knowledge, skills, attitudes, confidence and commitment based on their participation in a training event.	Pre- and post-training tests, performance-based skill evaluations, interviews or simulations.	Low test and evaluation scores may indicate the need for prerequisite training or additional opportunities to apply learning.
Level 3	Behavior	The degree to which participants apply what they learned during training when they return to the organization.	Observation and interviews of participants and their supervisors, chart reviews and self-assessments. Employing these methods over time will show trends and sustainability.	Data collected may identify staff that may require learning reinforcement.
Level 4	Results	The degree to which targeted outcomes occur as a result of the training event and subsequent reinforcement.	Observation, interviews and focus groups; cultural assessment; financial information; statistics.	Collected data can identify whether training is addressing gaps and what new gaps may have emerged that require attention.

Table 1: Kirkpatrick Model

Training measurement may identify concepts that require learning reinforcement (methods to reinforce learning are described in the Measuring and Reinforcing Learning Fact Sheet). Additionally, level four evaluations may indicate whether new training gaps have emerged that require training.

TRAINING COURSE MAINTENANCE

Once training is measured, training leads should establish procedures for ongoing course maintenance to sustain course delivery, incorporate participant and instructor feedback, respond to changes that impact the course and cultivate continuous improvement. Training leads should document procedures to address content changes, required approvals, course refresh intervals, course material production, equipment storage, instructor selection and course evaluation in a training maintenance plan. Training maintenance plans operate as a guide to sustain training and foster seamless transition between personnel or departments. Seamless transition is paramount in the military where training personnel may be deployed or experience a permanent change of station. The training maintenance plan should include guidelines around the following:

- **Changes and approvals:** Course materials should be revised to address changes such as those presented in Table 2. The training maintenance plan should identify how to respond to such changes, what training updates require approval before implementation and who is responsible for approval.

Changes in the following may impact the course:	
• Standard Operating Procedures	• Course delivery schedule
• Regulations	• Instructor availability
• Required procedures	• Intent/goals of course or objectives
• Current practice guidelines	• Relevant equipment or training tools
• Participant feedback	• Audience composition
• Credentialing standards	

Table 2: Catalysts for Course Material Revisions

- **Course refresh/update:** Course materials must be reviewed and updated periodically. In health care training, literature searches may be conducted to determine if course content continues to reflect the most current practice guidelines. If changes are required, training leads may need to create new modules to fully address learning objectives. Training leads should consult with Subject Matter Experts (SMEs) to identify what material must be changed and how. For course content impacted by frequent technical updates, SMEs may be asked to co-facilitate and discuss what additional changes may be ahead.
- **Equipment storage and course material production:** Training leads must also determine how course materials and equipment should be stored and maintained. Course materials are often kept electronically in a content repository and personnel is assigned to print materials required for classroom-based courses. Printed materials and equipment require a physical storage location if not otherwise in use between trainings. For online training, training leads should establish criteria for replacing or updating hardware and software and designate an approving authority.
- **Training new recruits and internal transfers:** Most training will be delivered on an ongoing basis as new recruits enter or internal transfers occur. However, some training is only delivered over a specific period of time and not renewed. For these courses, often used to train personnel on a new system or protocol, reinforcement methods may be appropriate to train new recruits, internal transfers or trained staff who have been identified as needing additional instruction.

Summary

Ongoing training measurement and evaluation provides training leads the information required to sustain effective training. Documenting measurement and maintenance processes in a training maintenance plan after training implementation sets expectations, roles and responsibilities in order to update, reinforce, and implement training in perpetuity. Course material will evolve, but standardized measurement and maintenance processes will allow personnel to implement training on a topic, as long as the need remains.