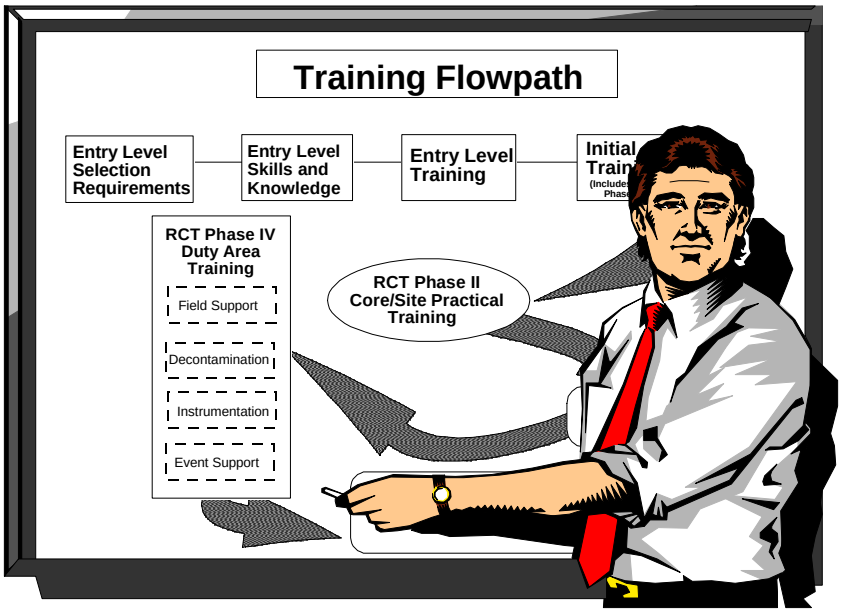
ADDENDUM G

PARTICIPANT MANUAL

Introduction



Welcome to the Table-Top Training Design Seminar!

A "good" training program ensures that workers can safely, competently, and efficiently perform their jobs. It teaches workers what they need to know and do to perform well, yet it does not waste their time on topics irrelevant to their jobs. In order for the training program to be "good," the training program content must be based on the tasks involved in performing the job.

This seminar will help your facility design a training program for your job position. You will write learning objectives which will serve as the foundation for the development of training materials. The training materials will contain the content you believe new hires need to be trained upon in order to perform the job tasks as safely and competently as the subject matter experts (SMEs) who have been selected to participate in this Seminar.

Someone from your operating organization initially determined that a training program should be designed for the job position being focused upon in this seminar. That person then identified a coordinator who arranged this seminar.

The Table-Top Training Design (TTTD) Coordinator is someone from your facility whom you can call for additional information regarding the training program being designed during this Seminar.

Name _____ Phone _____

Your instructors/facilitators are subject matter experts in the areas of Performance-Based Training (PBT), training content analysis, and table-top training design.

Name _____ Phone _____

Name _____ Phone _____

What is the Purpose of This Seminar?

Your management carefully selected you to participate in this seminar because you are perceived as a "role model" for excellent job performance.

- In this seminar, team members will use their expertise and experience to design a training program for your job. The task list will then serve as the foundation for the development of training materials.

- Members of your facility training staff may also participate to learn how to conduct future Table-Top Training Design (TTTD) Seminars.

What Objective Will You Accomplish?

Using the Table-Top Training Design process, participants will DETERMINE curriculum content and WRITE learning objectives for the training program.

Seminar Overview

Agenda

Day 1

Introduction	8:00-8:40
Overview	8:50-10:50
Team Skills	11:00-11:30
Lunch	11:30-12:30
Workshop	12:30-5:00

Days 2&3

Workshop	8:00-12:00
Lunch	12:00-1:00
Workshop	1:00-5:00

Day 4 (if needed)

Workshop	8:00-12:00

Roles

Team Members
Subject Matter Experts (SMEs),
Supervisors, and Engineers

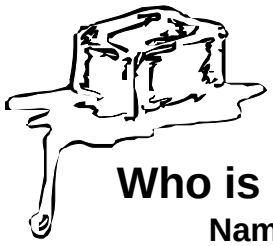
- Use their technical expertise to design training for the job
- Examine existing task lists, procedures, and other reference materials to help determine content for the training program

Facilitator
(Instructional Technologist)

- Teaches lessons that orient team members to TTTD
- Guides team through each TTTD step
- Uses process expertise
- Does not provide technical input about training content or design

Observers
(Training Staff)

- Participate in lessons
- Observe during TTTD workshop
- Help facilitate TTTD steps if desired
- Take notes during training discussions



Icebreaker

Who is Participating During this Seminar?

Name **Work Responsibilities**

……

……

……

……

……

……

……

……

……

……

……

……

……

……

……

Housekeeping

TIME

When would you prefer to do the following?

- Start time: _____
- Lunch time: _____-_____
- End time: _____

A 10-minute break will usually take place every 50 minutes. The actual timing will be left to the discretion of the instructor/facilitator.

REFRESHMENTS

Have you located the coffee and vending machines?

If facility policy allows, please bring in healthful refreshments such as fruit, crackers, and juice to share with the group. We will need it to maintain our stamina!

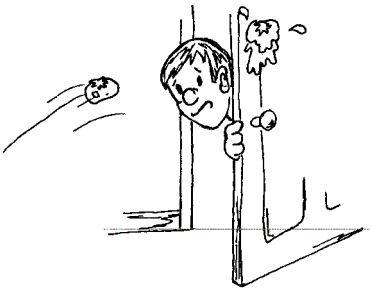
OTHER

Have you located the restrooms? Telephones?

Are you aware of the parking policy? Smoking policy?

Expectations

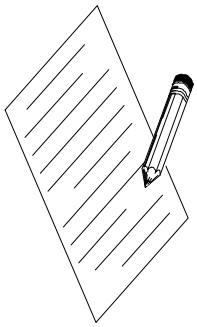
Attendance Policy



Your management is aware that this seminar relies on all of your participation. People who are late or are part-timers will miss some of the group discussions, which may seriously disrupt the proceedings. Therefore:

- You must be present and participate in all portions of the seminar.
- You must be on time for all sessions.

Please sign your name on the attendance form as you would like it to appear on the Certificate you will receive for participating in this seminar.



Seminar Evaluation Form

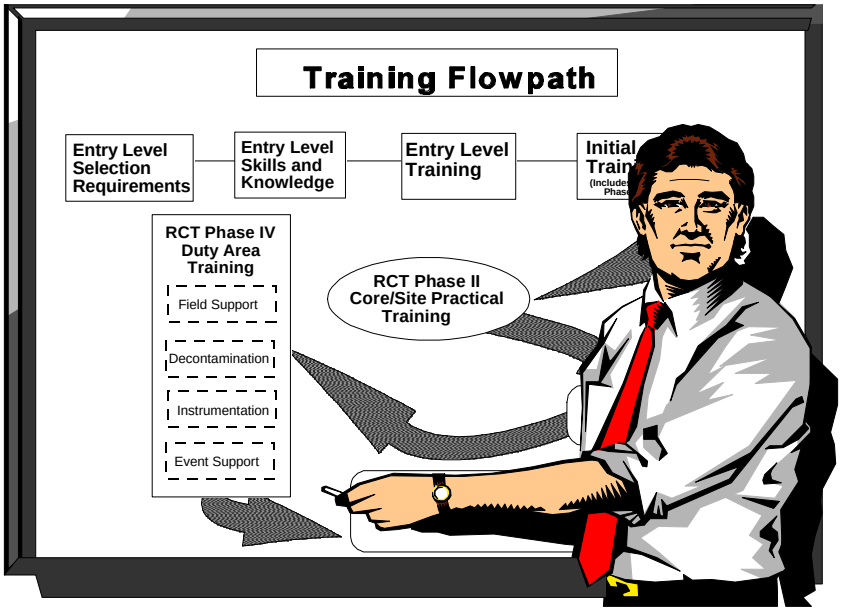
Please complete the seminar Evaluation Form at the end of the seminar as the directions state. The instructor/facilitator will collect the Evaluation Form at the end of the seminar. You DO NOT have to put your name on the form.

Questions

Please feel free to ask questions at any time during the seminar.

Thanks for Being Part of the TEAM!

Overview of Table-Top Training Design



Ideas

Notes

Writing Learning Objectives

Learning Objectives

TERMINAL OBJECTIVE:

Given a list of tasks selected for training, DESIGN a training program structure and ANALYZE some of the tasks in accordance with the stated criteria.

ENABLING OBJECTIVES:

1. Describe how analysis and design products are used in each PBT phase.

2. State and briefly describe each step of the Table Top Training Design Seminar.

3. Explain the concepts of entry-level requirements, initial training, and continuing training, and cite examples of the content of each.

4. Describe the methods for determining the content of the training program.

How Analysis and Design Products Are Used in Each PBT Phase

Phase:	Purpose:
A_____	nalyze job performance requirements ● Develop valid task list
D_____	Based on Task List. write: ● Learning objectives ● Test items
D_____	Based on objectives and test items, write: ● Lesson Plans ● Tests
I_____	Based on lesson plans and tests, provide: ● Consistent instruction and evaluation of trainees
E_____	Throughout process: ● Evaluate effectiveness of each phase ● Evaluate effectiveness of training program ● Use results to maintain/improve the process and the training program

The success and effectiveness of the entire PBT training program hinges on the quality of the analysis data and training program design..

Table-TopTraining Design

The Steps

1. Orient the Team
2. Design the Training Program Structure
3. Place the Tasks in the Training Program Structure
4. Prioritize Courses for Development Efforts
5. Determine Course Content
6. Identify Additional Content
7. Identify Existing Materials
8. Write Learning Objectives

Design the Training Program Structure

Entry-Level Requirements

Entry-level requirements include the education, experience, knowledge, skills and other training a person must possess or have completed prior to entering the job-specific training program.

Examples

Selection Requirements	
● **Education** ● **Experience** ● **Medical**	H.S. Diploma or GED 2 yrs. operations experience, 1 yr nuclear experience Successful medical exam (vision, hearing, lifting)
Entry-Level Knowledge and Skills	● 10th grade reading level ● Basic math skills (addition, subtraction, multiplication, and division to 4th decimal place)
Entry-Level Training	● General Employee Training ● Radiation Worker Training ● Site Core Fundamentals ● Facility Employee Training ● Conduct of Operations

Make sure whatever entry-level requirements are appropriate for this job are documented in the position descriptions, verified in individuals' records, described in procedures, consistent with the facility's Training Implementation Matrix, added to Qualification Cards, and have exceptions/alternatives documented.

Design the Training Program Structure

Initial Training

Fundamentals Training

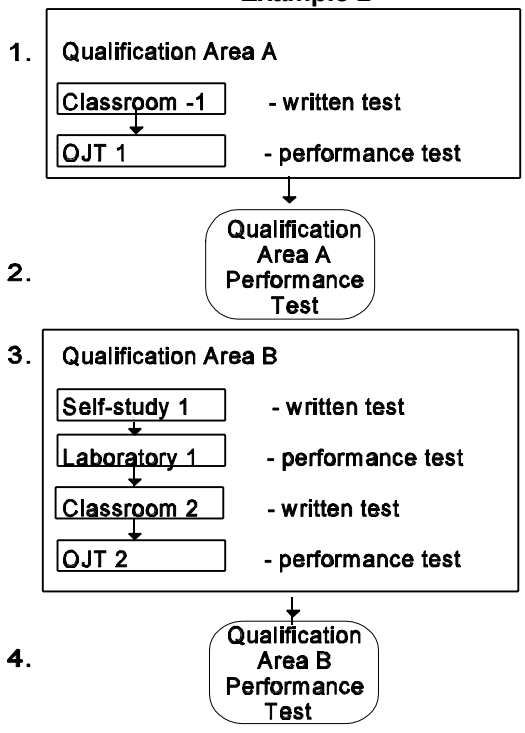
Examples

- Chemistry - classroom - written exam
- Physics - self-study - written exam
- Electricity - self-study - written exam
- Nuclear Theory - classroom - written exam

Other Initial Training

- Train tasks
- Overtrain tasks
- Info taught in "as needed" training
- Team training/ communications

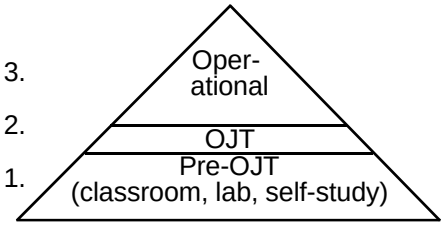
Example 1



Design the Training Program Structure

Initial Training

Example 2



Application of Example 2:

Pre-OJT

- Systems Overview - classroom/walkthrough - written exam
- Pumps - laboratory/walkthrough - performance exam
- Electrical Supply - classroom/walkthrough - written exam
- Effluent Treatment - classroom - written exam
- Emergency Operations - classroom - written exam

OJT

- Hydraulics repair - self-study/OJT - performance test
- Waste pick-up - OJT - performance test
- Contamination surveys - lab/OJT - performance test
- Routine operations - OJT - performance test
- Emergency operations - self-study/OJT - performance test

Job-Qualification Exams
(as per 5480.20A)

Design the Training Program Structure

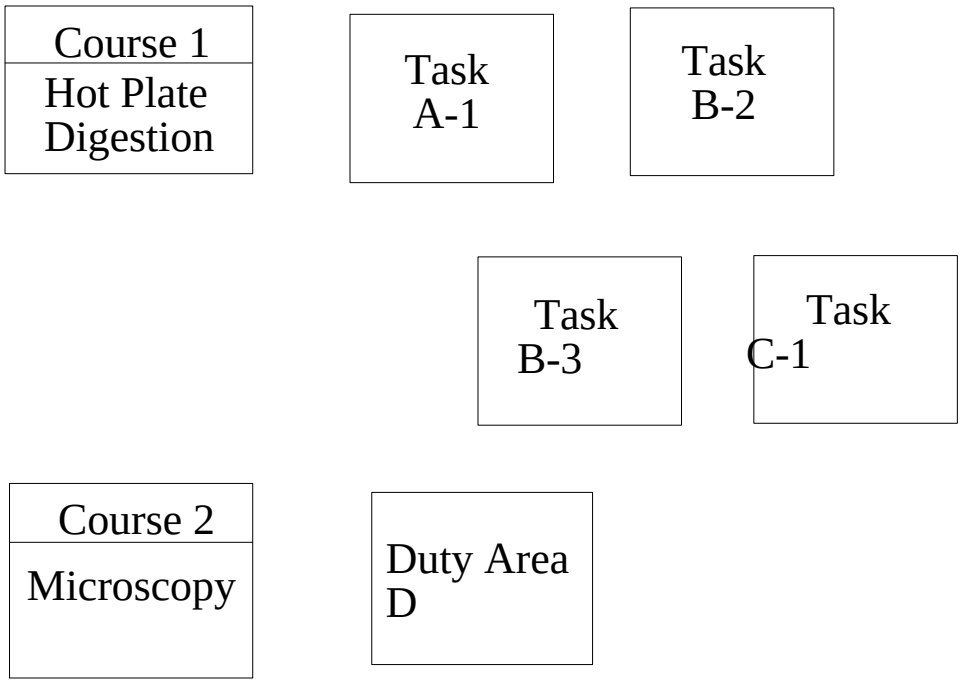
Continuing Training

	Examples
Annual Training - Vital tasks - Regulatory training	- HazCom Training - classroom - written test - Lock/Tag-out - OJT - performance test * Drill: Abnormal Procedures and Emergency Response - performance test - Safety Training - classroom - written test - MSDS Training - classroom - written test - OSHA Awareness - classroom - written test
As-Needed Training - Pre-train tasks - Info gathered from program evaluation activities	* Industry and facility events/lessons learned * Plant modifications * Procedure changes * Training to correct identified job performance deficiencies
Biennial Training - Overtrain tasks - Other regulatory re qual training - Info taught in "as needed" training during the previous 2 yrs.	- Emergency Response - classroom/lab - written and performance tests - Radiation Control Practices - classroom/ OJT - written and performance tests * Use of systems to control or mitigate accidents * Other topics in 5480.20A

Job Re-Qual
Exam
(per 5480.20A)

* Required for certified positions as per DOE 5480.20A

Place the Tasks in the Training Program Structure



This Step is often performed with Step 2.

Prioritize Courses for Development Efforts

Determine Course Content

Methods

- **Traditional Task Analysis**
- **Document Analysis**
- **Brainstorming**
- **Nominal Group Technique**
  Concensus Decision Making
- **Template Method**

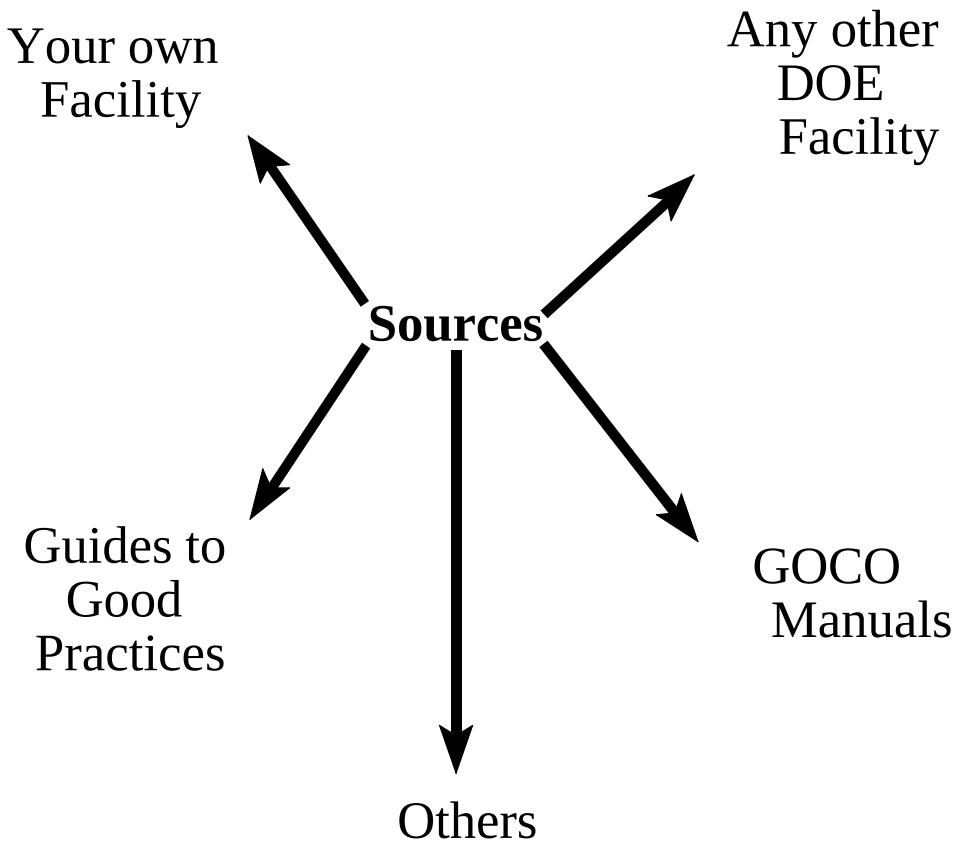
Identify Additional Content

To ensure all appropriate content is included in the training program content, there are various sources of information the team should check:

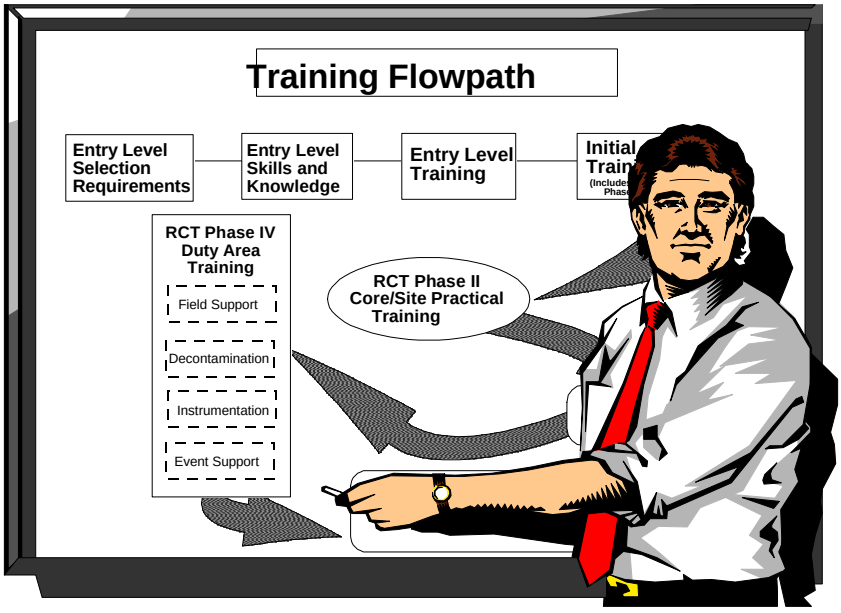
- ***Regulatory Requirements (DOE, OSHA, EPA, etc.)***
- ***DOE 5480.20***
- ***DOE 5480.19***
- ***The facility's Safety Analysis Report***
- ***ORPS reports***
- ***Documents describing recent facility events***
- ***Facility required training***.

Identify Applicable Existing Training

If a course exists and is adequate, why reinvent the course?



Maximizing Team Effectiveness



Ideas

Notes

Maximizing Team Effectiveness

Learning Objectives

TERMINAL OBJECTIVE:

Given the guidelines for effective Nominal Group Technique and Consensus Decision-Making, team members will APPLY the guidelines while contributing ideas during the Table-Top Training Design Workshop.

ENABLING OBJECTIVES:

1. Define the terms "Nominal Group Technique" and "Consensus Decision-Making."

2. Describe the steps involved in Nominal Group Technique and Consensus Decision-Making.

3. List the guidelines for applying the Nominal Group Technique and Consensus Decision-Making process.

Definitions

In order to avoid some common problems that occur when there is a gathering of highly competent people

-- some people dominate
-- ideas or other contributions are lost or dismissed
-- some people never participate
-- non-productive environment for any creative process

you will apply the following techniques during this seminar.

Nominal Group Technique is a structured group process resulting in the maximum contribution of experienced individuals to a common goal.

Consensus Decision-Making is a process of obtaining general agreement among several people.

Steps in Nominal Group Technique and Consensus Decision-Making

Using a combination of Nominal Group Technique and Consensus Decision-Making, we will reduce the negative social interactions and communication problems that interfere with good decisions and effective use of time, and at the same time, make the best possible use of the talent available.

1. **Silently generate/write ideas**

2. **State ideas in round robin**

3. **Discuss/clarify ideas**

4. **Combine ideas as appropriate**

Exercise

Write down your answers to the instructor's question, making sure each answer contains:

- an action verb
- a noun (object of the action)
- 4-5 words maximum

Guidelines for NGT and CDM

When participating in this seminar, please remember the following:

- ✓ Apply relevant criteria
- ✓ Add to your list
- ✓ Help others formulate their statements
- ✓ Present your ideas clearly and logically, but don't argue
- ✓ Empower yourselves to make this work!

Summary

TERMINAL OBJECTIVE:

Given the guidelines for effective Nominal Group Technique and Consensus Decision-Making, team members will APPLY the guidelines while contributing ideas during the Table Top Job Analysis Workshop.

ENABLING OBJECTIVES:

1. Define the terms "Nominal Group Technique" and "Consensus Decision-Making."

2. Describe the steps involved in Nominal Group Technique and Consensus Decision-Making.

3. List the guidelines for applying the Nominal Group Technique and Consensus Decision-Making process.

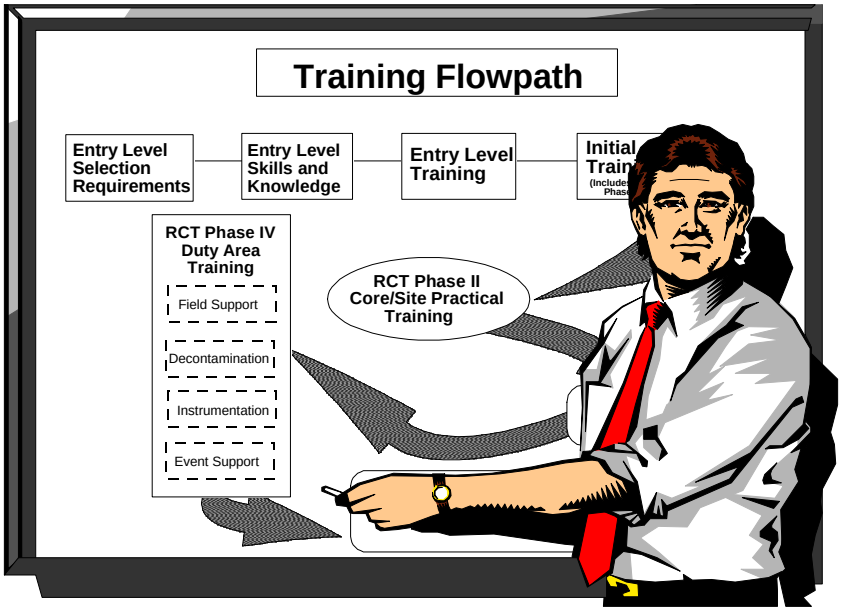
References

1. International Board of Standards for Training Performance and Instruction, *Training Manager Competencies: The Standards*, "Nominal Group Technique."

2. Marion E. Haynes, *Effective Meeting Skills*, Los Altos, California: Crisp Publications, Inc., 1988.

3. Zenger-Miller, "Team Leadership," *Helping Your Team Reach Consensus*, San Jose, California: Zenger-Miller, International, 1992.

Writing Learning Objectives



Ideas

Notes

Writing Learning Objectives

Learning Objectives

TERMINAL OBJECTIVE:

Given an example task and a method for writing learning objectives, CONSTRUCT a learning objective containing a condition, a performance statement and a standard.

ENABLING OBJECTIVES:

1. Describe the three elements of a learning objective.

2. Explain how enabling objectives support a terminal objective.

3. State the four qualities of a good learning objective.

4. Write several objectives using the template method.

Learning Objective

A Learning Objective is a statement that specifies:

- a measurable behavior a trainee should exhibit after instruction
- the conditions under which the behavior will be evaluated
- the standards of performance.

Action Verbs

Use action verbs that describe exactly what the trainee will do, such as:

Calculate	Define	Describe
List	Recite	Assemble
Construct	Underline	Demonstrate
Identify	Select	Perform
Solve	Operate	Saw
Fasten	Drill	Paint

Non-Action Verbs

The best objective is clear cut and specifically stated. Therefore, AVOID using vague "non-action verbs" that are subject to a wide range of interpretations, such as:

Believe	Capacity	Comprehend	Conceptualize
Depth	Experience	Feel	Hear
Intelligence	Know	Listen	Memorize
Perceive	Realize	Recognize	See
Think	Self-actualize	Understand	

SHOW:

Appreciation for...	Attitude of ...	Awareness of ...
Comprehension of ...	Enjoyment of ...	Feeling for ...
Understanding of ...	Knowledge of ...	Interest in ...

BECOME:

Acquainted with ...	Adjusted to ...	Capable of ...
Self-confident in ...	Conscious of ...	Familiar with ...
Knowledgeable about ...	Interested in ...	Cognizant of ...

Examples of Conditions

Equipment:

- Given the necessary tools
- Given consumable supplies
- Using test instruments
- Using manual, specifications, etc.
- Given a lathe, motor, or other major piece of equipment

Situations:

- Using customer's car or other work item
- Under some simulated condition
- Presented with picture, problems, case study
- Given a work order, verbal instructions, blueprint, etc.
- Provided with results of a diagnostic test
- Provided with the data, measurements, parameters, map, schematics
- Given a list of terms, parts, tools, etc.
- Given a field situation
- Given numbers, figures, or problems

Examples of Standards

_____ Standards: (How the trainee performs the task)

- Within 30 minutes
- Performing all steps in sequence
- Following safety practices
- Following manufacturer's maintenance procedure
- Not exceeding flat-rate time by more than 25%
- Using proper tools and equipment

_____ Standards: (How the finished product turned out)

- According to the manufacturer's specifications
- No visible cracks or pits
- With no errors (100% accuracy)
- Conforms to local building code
- With 90% accuracy
- Within 10% of actual reading

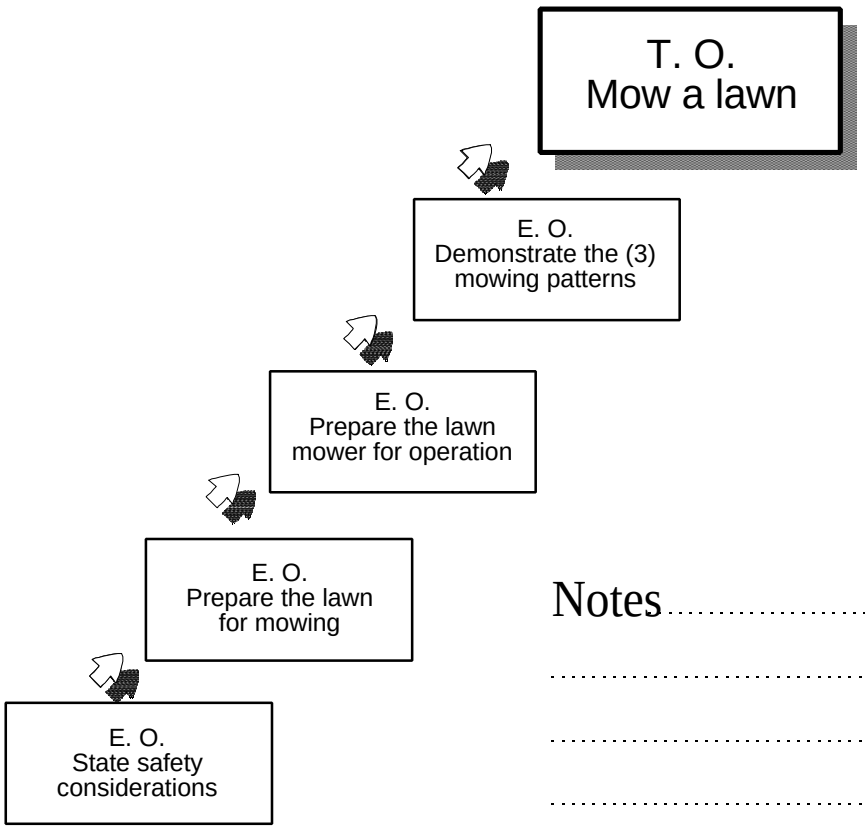
Levels of Learning Objectives

Objective:

End result intended for instruction (keyed to task performance)

Objective:

Detailed statements of the elements (knowledge, skills, and attitudes) that support and explain how the terminal objective will be reached



Notes .....

.....

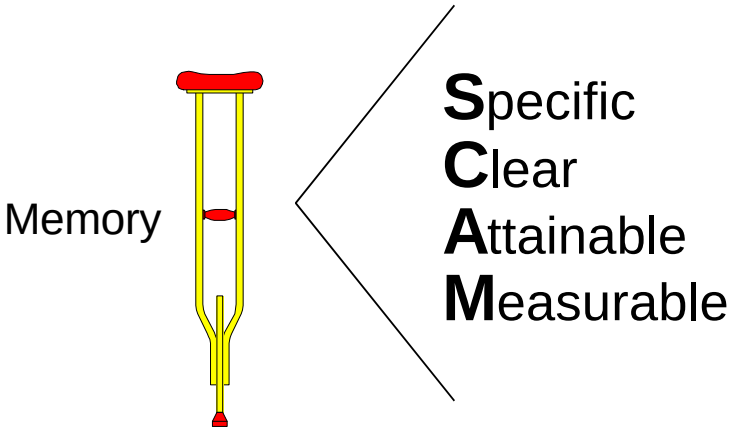
.....

.....

Learning Objectives

A learning objective must be:

- Specific:
- Clear:
- Attainable:
- Measurable:



Learning Objectives

Template-type condition, action, and standard statements are tools for use in writing learning objectives. This approach is based on the premise that technical training has common objectives that apply across many areas. Previously developed templates from other facilities or courses may also be used to identify the objectives for fundamental knowledge training. For example, individuals who operate or maintain facility systems would be expected to meet the following types of objectives:

- state the purpose of the _____ system
- name the major components of the _____ system
- match _____ system parameters to facility mode
- predict the effects of a loss of _____ on _____
- test a _____
- diagnose a _____ problem in a _____
- repair a _____

Used wisely, template statements can simplify development of learning objectives for common tasks and fundamental knowledge. However, users should recognize that most training situations will also require the development of unique learning objectives. Rigidly adhering to a set of template statements in these situations may prevent needed learning objectives from being developed. Objectives created using this method, as with any method, should be reviewed and approved for use.

Ideas

Notes