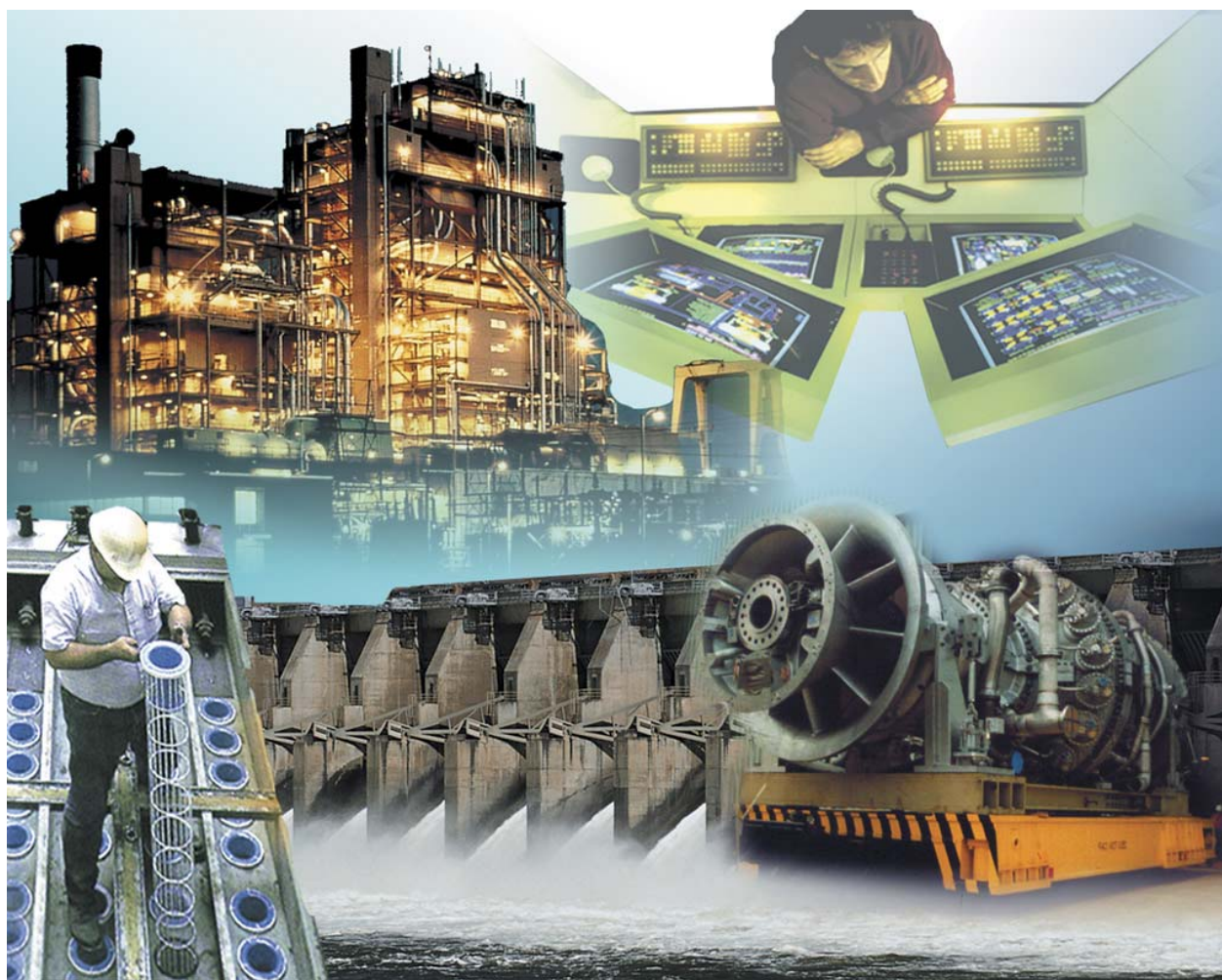


# Training Course for OJT/OJE

1009851





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1009851

Technical Update, November 2004

EPRI Project Manager

Richard Pennington

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This document was prepared by

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This document describes research sponsored by EPRI.

The publication is a corporate document that should be cited in the literature in the following manner:

*Training Course for OJT/OJE*, EPRI, Palo Alto, CA,: 2004 1009851.



## **ABSTRACT**

This Technical Update will provide the reader with a guided approach for developing and implementing an on-the-job training (OJT) program and the process for evaluating a person's on-the-job performance (OJE).

On-the-job training is essential for providing plant employees with the skills and knowledge necessary to operate a power plant in a safe and efficient manner. A structured OJT program will insure all employees are receiving the hands-on training consistent with a set of validated competencies.

The OJE is the process of evaluating a person's performance against a set of pre-established standards. A uniform OJE process will help to eliminate the subjective aspects of evaluating a person's performance and will provide the trainee with the standards and expectation from which they will be evaluated.





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# 1

## INTRODUCTION

On-the-job training (OJT) is a process for teaching specific skills and knowledge related to a task or process where the classroom is typically the jobsite. OJT has been around since the beginning of time. The early settlers used OJT to teach their children how to use the horse and the plow to farm their land. The shoe maker handed down his skills to his children by showing them how to build shoes. After he showed his children several times he would let them practice until they too had mastered the art of making shoes.

Today the same process is used in almost every industry, school, and in the home. Children grow up by watching their parents. Many times a child will imitate the parent because they have learned by watching. We teach our children to catch a ball or ride a bicycle by first demonstrating the process and then letting the child practice until they themselves have mastered the task.

OJT has many steps including the following:

- Telling a person how to complete a task
- Showing the person how to perform the task
- Again, showing the person how to complete the task
- Allowing the person to practice while observing the task (Mentoring)
- Allowing the person to perform the task (Monitoring)
- Allowing the person to complete the task without mistakes (Evaluation)

OJT should not be the sole way of training an individual. Without proper education the person would not understand why something does the thing it does. He or she would only understand how to get the thing to do what it is suppose to do. Without understanding why it works a person would have a very hard time trying to figure out how to fix something if it is not working properly. In reverse, book learning cannot produce the visual effects that are necessary for the mind to comprehend what the hands need to do.

On-the-Job Training Evaluation (OJE) is as important as OJT itself. To master a skill it is important for the person to know to what extent they will be evaluated in order to be considered qualified to perform the job.

The shoe maker most likely would look at many of the first shoes his children were making to see if the heels were of the correct height, the stitching was done properly to insure the shoes would not come apart, and that the sizes of both shoes were the same. After looking at many sets of shoes the shoe maker would feel that his children had mastered his craft and he would not need to look at every pair of shoes. But, then as now periodic evaluations at some intervals are needed. This is to insure the skills of the person have not degraded or been substituted with short cut procedures that decrease the quality of their work.



# 2

## DEFINITIONS

**On-the-job Training (OJT)** – formal training that is conducted and evaluated in the workplace [the training setting] by designated personnel [task “performers”] who provide instruction typically using demonstration/practice [the instructional method] and either a checklist, a job performance measure (JPM), [training and evaluation materials].

**Training phase** – the first, instructional (learning) phase of formal on-the-job training in which the trainer helps the trainee learn the key skills and knowledge required for successful task of job performance. The trainer’s role is to coach and assist the trainee while the trainee is learning the task/job.

**Evaluation phase** – the final, evaluation (testing) phase of formal on-the-job training in which the evaluator determines the candidates ability to independently perform tasks safely and reliably. The evaluator’s role is to determine whether the candidate meets the knowledge and performance requirements provided in the evaluation document and/or job procedure. The evaluator must refrain from providing any coaching cues or assistance to the candidate being evaluated.

**Qualification** – the determination that an individual has demonstrated the ability to meet established qualification requirements and standards and is authorized to perform independently thereafter. Qualification typically includes management review of the qualification process and documentation.

**Different day/different person policy** – the management policy that strongly discourages and for some organizations, may prohibit the same person from performing OJT and OJE on the same day and the completion and sign off of OJT and OJE on the same day. The policy helps to insure independence and objectivity while providing adequate separation between training and evaluation.

**Training exemption** – the formal process of excusing an individual from a training requirement (based upon documented education, experience, or completion of equivalent training). All exemptions require documented justification and management approval.

**On-the-job trainer** – an individual designated by line management to conduct on-the-job training. Individuals are qualified by line management’s review of their technical competence or task qualification and their completion of initial OJT/OJE training.

**Task performance evaluator** – an individual designated by line management to evaluate trainees’ skills and knowledge for qualification purposes. Individuals are qualified by line management’s review of their technical competence or task qualification, their ability to evaluate other’s competence, and the completion of initial OJT/OJE training.

**Coaching** – the practice of assisting and encouraging the trainee during the instruction/learning phase of OJT. Coaching is encouraged during the OJT phase, but prohibited during the OJE phase. Coaching behaviors can be verbal (e.g., asking leading questions, prompting) or

nonverbal (e.g., pointing, smiling, head nodding). The evaluator must be very careful NOT to demonstrate coaching behaviors during the evaluation as they may either assist the candidate being evaluated or give the appearance of assisting. Assistance is prohibited during the evaluation.

**Qualification Checkout Cards** – the training and evaluation document that provides guidance for the instruction and evaluation phases of formal on-the-job training. Checklists identify knowledge and performance requirements and provide places to document completion of the OJT and the OJE phases. A QCC may represent a single task or a group of related tasks. Checklists are used in operations and technical training programs but not typically in engineering and support programs.

**Job Performance Measures** – the training and evaluation document that provides guidance for the instruction and evaluation phases of formal on-the-job training. JPM's identify critical task performance requirements and selected knowledge items to be asked either throughout the document or at the end of the evaluation, as specified in the document. JPM's are used in some portions of operations training programs and provide a place to document completion of the OJE.

**Performance Modes/Levels** – the recommended level of performance to demonstrate ability to perform a task or elements (steps) of a task. Performance modes allow some level of evaluator judgment based on performance circumstances and/or the work environment (e.g., length of time to complete a task in a high radiation area), and require management review/approval to change. The three performance modes commonly used within the nuclear industry and their descriptions are:

***Perform*** – the candidate demonstrates task elements under actual job conditions using actual tools, equipment and resources (perform has high job/task fidelity). Perform is the preferred performance level and is specified as the required level for some tasks.

***Simulate*** – the candidate demonstrates/simulates under replicated conditions and standards to the extent possible when actual job conditions, equipment, and resources are not accessible or practical (simulate has some job/task fidelity depending on the circumstances of the simulation). When a task is performed on a mock-up in a training laboratory, it is considered to be the simulate mode, even though the fidelity may be high.

***Discuss*** – the candidate talks through the performance or describes what s/he would do in given circumstances if s/he were actually performing the job/task (job fidelity is dependent on the candidate's background/experience/task familiarity and the limits of communication skill).

# 3

## INSTRUCTOR LESSON PLAN

<b>LESSON TOPIC:</b>	Conduct of OJT and OJE	<b>LESSON CODE:</b>	OJT/OJE-1
		<b>TOTAL TIME REQUIRED:</b>	10 hrs
<b>REVISION NO.:</b>		<b>CLASSROOM:</b>	4 hrs
		<b>LAB/PERFORMANCE EVAL:</b>	5 hrs
		<b>STUDY:</b>	0.5 hr
		<b>WRITTEN TEST:</b>	0.5 hr

Target Audience: Any individual who is designated to conduct on-the-job training or On the Job Training Evaluations or implement training using training guides for accredited training programs.

Recommended by: \_\_\_\_\_ (title) \_\_\_\_\_ (date)

Approved by: \_\_\_\_\_ (title) \_\_\_\_\_ (date)

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### INSTRUCTOR REFERENCES

1. Academy Document 91-006, "Guidelines for On-the-Job Training and Evaluation"
2. Academy Document 98-004, "Guidelines for Training and Qualification of Engineering Support Personnel"
3. Applicable station procedure "Conduct of On-the-Job Training and On the Job Training Evaluation"
4. INPO 85-006 , "Principles of Training System Development"
5. Video Tape: - If Available
6. "Job Instruction: - If Available

### CLASSROOM EQUIPMENT

1. Overhead or In-Focus projector and screen
2. Whiteboard or flip chart, markers, erasers
3. Video tape player and monitor

## **TRAINING MATERIALS REQUIRED**

1. Handouts:
  - Selected information from the presentation: definitions, adult learning principles, best practices, etc.
  - Station procedure including job aid/guidance for performing OJT/OJE ]
2. PowerPoint Presentation or Transparencies
3. Performance Tests: PT-OJT/OJE-01 and PT-OJT/OJE-02
4. Tools or equipment (for instructor's demonstration and participant exercise)
5. Sample station procedures (for instructor's demonstration and participant exercise)
6. Operation manuals for demonstration equipment (if applicable)
7. Classification-specific qualification cards/job performance measures/training guides and answer guides (for instructor's demonstration and participant exercise)

## **STUDENT REFERENCES**

1. Paper copies of transparencies
2. Station procedure for conduct of On-the-Job Training and On the Job Training Evaluation
3. Applicable Qualification Cards/Training Guides and Answer Guides

## **PREREQUISITES**

None

## **NOTES TO INSTRUCTOR**

1. The number in bold print in parentheses located immediately before the major headings refers to the objective being discussed.



# 4

## INSTRUCTOR PREPARATION SUGGESTIONS

1. Since the training audience may include participants with a wide variety of backgrounds, be prepared to question background knowledge and review very basic information (e.g., the format of different qualification materials, qualification process/requirements that differ from program to program, how to verify prerequisites using Passport or PeopleSoft applications, training and line management expectations for safety and work control considerations, and expectations for observations of training and feedback to training).
2. The lesson plan provides optional activities for both instruction and practice in order to meet the diverse site-specific information needs and instructional preferences. Review the options and determine those that are appropriate for the target audience and site information needs (e.g., perform or simulate generation of a Crystal Report in PeopleSoft to check prerequisites).
3. Review any industry and site operating experience and lessons learned related to OJT/OJE and prepare to integrate them, where appropriate, within the lesson plan outline.
4. Select specific qualification materials appropriate for the participants (e.g., Checklists for technical and operations programs, JPMs for operations programs).
5. Prepare to demonstrate the conduct of OJT per some form of evaluation document using the performance test (PT-OJT/OJE-01) that participants will be evaluated against. This may require you to create a simple evaluation document.
6. Determine the subject for trainee practice of the four-step method (e.g., build a model airplane, do a magic trick, play classroom basketball, create a child's toy, etc.) and ensure you have the required materials.
7. Review the PowerPoint slides and the lesson plan. Note that the lesson plan contains the instructional outline (sequence) and supporting details, but not all the slide bullets.



# 5

## INSTRUCTOR GUIDE

### INTRODUCTION

- A. Reason for study
  - 1 To ensure students understand the reasons for implementing on-the-job training and On the Job Training Evaluation.
  - 2 To ensure students understand the expectations established for the provider and the receiver of On-the-Job Training (OJT) and On the Job Training Evaluation (OJE).
  - 3 To inform students of recurring problems attributed to ineffective OJT/OJE.

### OBJECTIVES

- A. Lesson objectives
  - 1. Terminal objective:

Upon completion of this lesson, the student will be able to conduct effective OJT and OJE using a self-selected qualification checkout card, job performance measure, or training guide.
  - 2. Enabling objectives:
    - a. Differentiate between on-the-job training (OJT) and On the Job Training Evaluation (OJE).
    - b. Identify the purposes of effective OJT and OJE.
    - c. Identify the characteristics of effective OJT and OJE.
    - d. Differentiate between the three performances modes (levels).
    - e. Identify programmatic requirements of conducting OJT and OJE.
    - f. Identify the selection and qualification requirements for OJT trainers and evaluators.
    - g. Explain the principles of adult learning and motivation as they apply to OJT and OJE.
    - h. Differentiate between OJT and OJE materials and their use.
    - i. Explain the four-step method of conducting OJT and OJE including the importance of trainee control during OJT and OJE.
    - j. Identify “best” OJT and OJE practices.

### PRESENTATION

- A. Overview of On-the-Job Training (OJT) and On the Job Training Evaluation (OJE)

*Differentiate between On-the-Job Training (OJT) and On the Job Training Evaluation (OJE)*

1. The Goal of OJT/OJE: to train personnel and evaluate their job-related skills and knowledge to determine their qualifications to **independently** perform tasks safely and reliably.

*Note: **Independent work** is that done by an individual who performs a task that affects equipment operation, equipment maintenance, or plant configuration for which he or she receives no direct supervision and is the only person involved in the task. (ACAD 98-004)*

2. Purposes of Conducting Effective OJT and OJE

*Identify the purposes of effective OJT and OJE*

Ask Question: “What are the purposes of conducting effective OJT and OJE?” Record student responses on flip chart or white board (skip TP-OJT/OJE-08) **-or-** review purposes using TP-OJT/OJE08.

Potential answers:

- a. Improve employee performance--safer, more effective, and efficient
- b. Improve overall plant efficiency
- c. Decrease plant events
- d. Assist management in assigning jobs or task to qualified, competent workers--effective way of selecting and placing the right people in the right jobs

**NOTE: OJT and OJE are two separate and distinct phases: training and evaluation**

3. Training phase - OJT
  - a. Provides instruction on key skills and knowledge required for successful job or task (mental or physical) performance
  - b. Trainee receives instruction and coaching from a qualified individual.
4. Evaluation phase - OJE
  - a. Determines trainee’s ability to independently perform a job or task (mental or physical) successfully.
  - b. Trainee must not receive instruction, assistance, or coaching from anyone.
5. Common features of Training and Evaluation
  - a. Are typically conducted in trainee’s workplace, using station specific procedures and equipment
  - b. Are facilitated by management designated individuals (as trainers and evaluators)
  - c. May use a variety of training and evaluation methods and settings
    - 1) Self-study — Training only
    - 2) Demonstration/Observation — Training only
    - 3) Discussion — Training & Evaluation

- 4) Laboratory — Training & Evaluation
  - 5) Simulator — Training & Evaluation
  - 6) Walk-through — Training & Evaluation
  - 7) Simulation — Training & Evaluation
  - 8) Independent Task Performance — preferred method for Training and Evaluation
6. Advantages and Disadvantages of OJT/OJE
    - a. Advantages
    - b. Disadvantages
  7. Trainer/Evaluator Knowledge Requirements
    - a. Characteristics of effective OJT/OJE
    - b. Programmatic requirements
    - c. Adult learner characteristics (principles) and using motivation
    - d. Four-step method
    - e. “Best Practices” (e.g., coaching during OJT, questioning during OJE, correcting trainee mistakes, maintaining trainee control, controlling distractions, providing reinforcement)

Ask Question: “*What are some likely sources of standards and expectations for conducting effective OJT and OJE?*” Record student responses on flip chart or white board, if desired.

Potential answers:

Site OJT/OJE procedure if applicable

Line and training management expectations (may be written or unwritten)

*Identify the characteristics of an effective OJT and OJE process*

B. Characteristics of an Effective OJT and OJE Process

1. Tasks or objectives selected for skills training--must be known by trainer, evaluator, and trainee (physical, oral [i.e., knowledge], and performance items listed on checklist)
2. Standards used in evaluating task performance--must be known by trainer, evaluator, and trainee (located in procedure or )
3. Job realism and “fidelity”
4. Consistency
5. Trainer and evaluator selection, instruction, and guidance provided by station specific procedure for conducting OJT and OJE
6. Accurate and complete training, evaluation, and qualification materials
7. Management oversight
8. Program evaluation—feedback into materials and process

*Differentiate between the three performance modes (levels)*

C. Performance Modes (also called levels)

1. Perform – candidate demonstrates skill elements under actual job conditions using actual tools, equipment, and resources (preferred level)
2. Simulate – candidate demonstrates skill elements under replicated conditions and/or standards when actual job conditions, equipment, and resources are not accessible or practical (provide or ask trainees to provide examples)
3. Discuss – candidate’s talks and/or walks through some of all of the skill elements to describe what s/he would do if s/he were actually performing the job/task. (The Engineering Support Personnel might use discussion more than operations or technical programs due to the nature of the work and the product, rather than process, focus of evaluation.)

*Identify programmatic requirements of conducting OJT and OJE*

**NOTE:** Use the site’s procedure for conducting OJT and OJE, as applicable; some of the “requirements” below may not be explicitly stated in the procedure, but are requirements of the systematic training process.

D. Programmatic Requirements of OJT and OJE (i.e., evaluating effectiveness)

1. Part of overall program evaluation is periodic review and update of OJT content, materials, and administration by training and line management to verify people qualified through OJT are competent and that implementation of OJT is validated
2. Three main areas of line management role
  - a. Supervisory monitoring of OJT and OJE
  - b. Evaluation of trainers and evaluators
  - c. Evaluation of OJT and task performance materials
3. Supervisory monitoring
  - a. Monitor qualification progress of trainees to
    - 1) Assign personnel to receive timely training
    - 2) Maintain sufficient numbers of qualified workers
    - 3) Determine future work group or shift manning levels
  - a. Observe plant activities and provide feedback to training on improving or declining job quality and efficiency
  - b. Reinforce validity of knowledge and skills obtained through training
  - c. Provide feedback to trainees and evaluators, plant management, and training on
    - 1) Observed performance deficiencies
    - 2) Changes in task conditions
    - 3) Changes in task equipment methodology
    - 4) New tasks
4. Evaluation of trainers and evaluators
  - a. Line and training management periodically observe conduct of OJT and OJE to monitor performance of trainers and evaluators

- b. Used to provide feedback to trainers and evaluators on their performance and identify needed improvements to training materials and content
- 5. Supervisor evaluation of OJT and OJE materials
  - a. Periodically review OJT and OJE material using feedback from
    - 1) Supervisory observations
    - 2) Trainer and evaluator evaluations
    - 3) OJT documentation reviews
    - 4) Task-related industry and plant experience
    - 5) Trainees
    - 6) Trainers and evaluators
- 6. Reporting OJE failures
  - a. When candidates fail the evaluation, the evaluator notifies line management and training management.
  - b. Purpose of reporting is to monitor the overall OJT/OJE process.
- 7. Trainer/evaluator feedback on training materials
  - a. Trainers should follow the guidance in the evaluation document (checklist, or JPM); however, if the trainer identifies a need to revise the document (e.g., procedure change has not been picked up in the document, or knowledge items/answer guide need revision), the trainer should notify applicable training personnel.
  - b. Evaluators should follow the guidance in the evaluation document as well. If the evaluator identifies missing or inaccurate information (e.g., essential questions or inaccurate answer guides/procedures), the evaluator should notify applicable training personnel.

*Identify the selection and qualification requirements of OJT trainers and evaluators*

#### E. Selection/Qualification of Trainers and Evaluators

- 1. Careful selection and designation of competent trainers and evaluators is a crucial element of OJT and OJE process that produces well-trained, qualified personnel
- 2. Qualifications
  - a. Trainers and evaluators demonstrate knowledge and skills in technical area(s) for which they act as trainers or evaluators
    - 1) Train or evaluate on particular task only if they possess technical competence
    - 2) Limit number of individuals to instruct specific OJT items to provide consistent, more reliable training, and evaluation. Ensure number designated is sufficient to allow training and evaluation in timely manner
    - 3) Other personnel--such as professional scientist, engineers, and supervisors--are qualified to evaluate through experience and education
  - b. Trainers and evaluators demonstrate understanding of instructing or evaluating responsibilities of role (completion of this lesson should meet this need)

- 1) Overall concept of OJT and OJE
- 2) How to develop trainee knowledge and skills (fundamentals of adult learning and motivation covered later in lesson)
- 3) How to conduct an evaluation (checkout)
- 4) How to apply performance criteria/standards in evaluating trainee
- 5) How to provide appropriate feedback to trainee, line supervisors, and training department
- 6) What actions to take when trainee demonstrates satisfactory or unsatisfactory knowledge/ability
- c. Trainers and evaluators advocate plant performance standards and operating policies. Some attributes are:
  - 1) Good judgment
  - 2) Maturity
  - 3) Good communication skills (especially listening)
  - 4) High standards of performance and commitment to quality
  - 5) Professionalism
  - 6) Conservative approach toward nuclear safety
  - 7) Observation skills
  - 8) Industrial safety awareness
  - 9) Integrity

*Explain the principles of adult learning and motivation as they apply to OJT and OJE*

F. Fundamental Principles of Adult Learning and Motivation Applied to OJT and OJE  
*(Note that most of the principles apply more directly and clearly to OJT; however, when the principles have not been applied, that may partially explain any resulting failures.)*

1. Training should satisfy a need. (Learning is facilitated when the trainee feels that the new knowledge/skill will be useful)
2. Trainee should be ready to learn. (Learning occurs more efficiently and effectively when the trainee is physically and mentally adjusted to receive instruction)
3. Instruction should be correct when trainee first receives it. (First impressions are difficult to erase. Information/ guidance should be correct the first time the trainee receives it. Providing incorrect information and/or demonstrating a task/skill incorrectly also reduces the trainer's credibility.)
4. Too much instruction delivered too quickly will not be absorbed. (Learning experiences should be presented in relatively small, digestible instruction units) [WTMI = Way too much information!]
5. Learning occurs best when new instruction is based upon trainees' existing skills and knowledge. (Learning begins with simple steps that are related to things trainee can now do or understand and proceeds to new and more difficult tasks or ideas. New



instruction should be associated as many ways as possible with things the trainee already knows)

6. Successful learning stimulates more learning. (Trainees tend to accept and repeat those experiences which have been satisfying)
7. Trainees learn only the behavior that they themselves produce. (Before learning can be complete, trainees must put into practice what they are attempting to learn. Repeated application of skills and knowledge enhances learning)
8. Timely feedback to trainees regarding their performance enhances their learning. (Trainees have an inherent need for information about the quality of their own performance. Typically, the sooner the trainee can have the satisfaction of knowing that he has learned something, the more ready he is for further learning)
9. Intense (vs. sterile) learning experiences are more easily remembered. (Trainees remember longer any experiences that have been exciting, dramatic, challenging, or creative)
10. Learning occurs best in the absence of interpersonal conflicts. (Attention is diverted from teaching and learning to resolving the conflict.) According to Maslow's Hierarchy of Needs, social needs must be satisfied before self-actualization needs are satisfied, i.e., it is difficult to focus on "becoming all that one can become" when trying to deal with anger, low self-esteem, etc.

*Differentiate between OJT and OJE materials and their use*

**NOTE:** Because the format and use of OJT and OJE material vary at the different stations, refer to the station's procedure and/or common practices. Handout sample materials and involve trainees in a discussion of the components and how the materials are used. Ensure that you discuss how to use the individual materials to prepare for training or evaluation, and how to introduce the training or evaluation, and how to evaluate knowledge and skill components, as applicable, as well as signature and processing requirements.

#### G. OJT/OJE Materials

1. Checklist – used in technical and operations program; has a knowledge and performance section typically
2. Job Performance Measure (JPM) – used for some operations tasks; has critical steps and limited number of knowledge questions

**NOTE:** Refer to the 10 principles of adult learning as applicable when discussing the Four-Step Method to reinforce the concepts and help trainees plan to apply them during the OJT sessions they conduct.

#### H. Four-Step Method of Conducting OJT and OJE

1. Four-Step Method, also called 4-P method (divided into two phases)
  - a. Training phase – *The comprehensive training method described below may include activities that are not appropriate for certain trainees and/or certain*

*tasks. Trainers may vary the approach dependent upon the trainee's entry-level skills and knowledge and the task for which training is being provided.*

- 1) Step 1—**P**reparation
- 2) Step 2—**P**resentation
- 3) Step 3—**P**actice (or Application)
- b. Evaluation phase
  - 4) Step 4—**P**erformance (or Evaluation)
2. Step 1—Preparation

**NOTE:**

**The evaluation guide used in this course, the station-specific (procedure driven) sequence of elements, and the model may vary slightly. Adapt discussion of the sequence and descriptions, as needed, so as not to confuse trainees. Use the station's procedure or job aid as the guiding document for the discussion explaining that the evaluation guide allows for ease of evaluating skills developed during training. Discuss the bullets from the lesson as they apply at your plant or use the evaluation guide to talk through the four-step model. Refer to the sample evaluation documents, as needed for trainees to understand what they will be doing during OJT and OJE as directed or not directed by the Checklist/JPM.**

- a. The Trainee studies the checklist/JPM and associated references (e.g., procedure, technical manual, schematics/drawings, etc.).
- b. The Trainee requests training from a management designated Trainer
- c. The Trainer prepares to instruct, collaborating with the trainee to:
  - 1) Plan the training session
    - a) Identify specifically what training the trainee needs
    - b) Establish a schedule based on available resources or plant conditions
  - 2) Notify independent observers
    - a) Line management (e.g., trainee's supervisor or unit manager)
    - b) Training personnel (e.g., training program lead instructor)
  - 3) Assemble training materials
- d. The Trainer
  - 1) Verifies that trainee has completed applicable prerequisites – training and checklist/JPM
  - 2) Reviews qualification card/training guide and references, including:
    - a) Procedures, technical specifications, equipment manuals, related lesson plans, etc. (references on answer guides)
    - b) Plant/industry operating experience information
  - 3) Practices task

- a) Practices demonstration at least once--may be "rusty"
  - b) Reviews communication techniques
- 4) Prepares trainee
  - a) Relieves trainee's uneasiness
    - i) Try to get trainee to relax (i.e., tell a joke, war story)
    - ii) Reduce tension and stress
  - b) Stimulates trainee's desire to learn
    - i) Guarantee that learning will take place
    - ii) Explain importance to job
    - iii) Explain the personal rewards
  - c) Determines trainee's knowledge level
- 3. Step 2—Presentation

**Note:** *Presentation may be accomplished in intervals distributed over time.*

- a. The Trainer...
  - 1) Begins session with **introduction**, also called **preamble** (see station specific procedure)
    - a) Objective (i.e., to provide training on specified task)
    - b) Ground rules
    - c) Cautions
  - 2) Discusses task
  - 3) Demonstrates task
  - 4) Checks for trainee's understanding

**Note:** **Emphasize that the on-the-job trainer's discussion should include both "explicit" and appropriate "tacit" knowledge. Explicit knowledge is information that has been documented, e.g., via procedures. Tacit knowledge is information that is typically unwritten and based on clues, hunches, instinct, personal insights, etc of the "information provider." Any tacit knowledge shared with a trainee should be supportive of procedural guidance.**

- b. The discussion should address...
  - 1) Purpose for performing the task
  - 2) Consequences of inappropriate performance
    - a) Safety risks for personnel/public
    - b) Potential damage to property
  - 3) Conditions necessary for performance
  - 4) Personnel interfaces
    - a) Who has to grant permission
    - b) Who provides information
    - c) Who receives information

- 5) Task elements/steps
- 6) Standards for success (i.e., procedures)
- 7) Lessons learned from plant/industry operating experience information
- c. During the discussion, the Trainer should:
  - 1) Minimize distractions
  - 2) Use familiar language
  - 3) Match instruction to trainee's level of knowledge
  - 4) Appeal to multiple senses (e.g., sight, touch, hearing)
- d. The demonstration should show:
  - 1) Actions (steps) and appropriate communications
  - 2) Appropriate use of tools and equipment
  - 3) Strict adherence to:
    - a) Safety rules
    - b) Task procedure
    - c) Plant work standards
- e. During the demonstration, the Trainer should:
  - 1) Minimize distractions
  - 2) Ensure the trainee can see and hear!
  - 3) Repeat key information
  - 4) Emphasize safety precautions and hazards
- f. Checking for understanding involves:
  - 1) Asking the trainee to repeat/summarize key information
  - 2) Encouraging trainee to ask for clarification of anything misunderstood
4. Step 3—Application (or Practice)
  - a. The Trainer:
    - 1) Ensures trainee is ready to practice task by asking about:
      - a) Parameters (meters, charts, measurements, etc) that should be observed/monitored during actual performance of task
      - b) Required manipulations and the parameters that may be expected to change
    - 2) Directs trainee to perform task and announce his/her actions
    - 3) Monitors trainee's performance - observes actions closely
    - 4) Assists with correcting mistakes (*more in best practices*)
    - 5) Ask follow-up questions to ensure trainee understands basis for his/her decisions and actions and subsequent equipment/system response; ask questions about hypothetical scenarios – retrain as appropriate
5. Trainer documents training completion (if applicable)
  - a. "Successful training is indicated by the trainee's ability to perform the task according to standards without any coaching."

- b. During the first three steps, trainer acts as a coach providing assistance and information. Assistance should be reduced as task is mastered
- 6. Step 4—Evaluation
  - a. The trainee requests checkout from a management designated evaluator when confident of ability to perform task. (**NOTE:** a more effective evaluation may result if evaluator is not same person as trainer)
  - b. The evaluator plans for the evaluation collaborating with the trainee to:
    - 1) Plan the checkout
    - 2) Notify independent observers prior to scheduled session
    - 3) Assemble evaluation materials
  - c. The Evaluator:
    - 1) Verifies completion of prerequisite training and qualification items.
    - 2) Reviews performance standards (checklists, Associated procedures)
    - 3) Begins checkout with **preamble** (see station specific procedure)
  - d. **CAUTION** — Coaching the Trainee is **not** allowed during a checkout. *However, a trainee may communicate with individuals during a checkout as required by procedure to accomplish the task. Individuals communicating with trainees must not behave in any manner that could prompt trainee's decisions or actions.*
  - e. Evaluation of knowledge items – the Evaluator:
    - 1) Questions Trainee to determine mastery
    - 2) Compares Trainee's responses to standards
    - 3) Stops checkout for cause, OR
    - 4) Proceeds with completing checkout
  - f. Evaluation of task performance – the Evaluator:
    - 1) Tells trainee to announce each action
    - 2) Tells trainee to commence performance
    - 3) Monitors trainee's performance
    - 4) Compares performance to standards
    - 5) Stops checkout for cause, OR
    - 6) Proceeds with completing checkout
  - g. Evaluation of product – the Evaluator:
    - 1) Directs Trainee to develop product without seeking/accepting guidance from anyone unless required by policy/procedure, i.e. authorized personnel
    - 2) Compares completed product to standards
    - 3) Questions Trainee to determine knowledge and skills used to develop product
    - 4) Stops checkout for cause, OR
    - 5) Proceeds with completing checkout

- h. Reasons for stopping (terminating) a checkout
  - 1) To prevent injury to personnel or damage to equipment
  - 2) Violation of a radiological procedure
  - 3) Inappropriate response to a question
  - 4) Unsatisfactory performance
- i. If a checkout is stopped, the Evaluator must:
  - 1) Clearly announce the termination and why
  - 2) Document the deficiency per station procedure
  - 3) Provide the Trainee with developmental feedback
  - 4) Continue as a training session, OR
  - 5) Refer to supervision for other action
- j. Following the checkout, the Evaluator should:
  - 1) Provide timely developmental feedback to the Trainee
  - 2) For **satisfactory** performance, sign the checklist
  - 3) Notify Trainee's supervision of checkout results.
- 7. Documenting the evaluation results:
  - a. Checklist for Maintenance, Fuel Handling, and Operations. (Operations may also use Job Performance Measures [JPMs] for select tasks.)
  - b. Employee performance evaluation is based on referenced standards (e.g., procedure)
  - c. Use references to ensure consistency in evaluating knowledge elements
  - d. Standards/criteria listed on guide
- 8. Provide feedback to Training on possible improvements/revisions to checklist
- 9. Prerequisite training
  - a. Prior to OJT and OJE, trainee is provided with fundamental, technical, and administrative knowledge and skills related to safety practices and procedures, job responsibilities and authorities, and administrative procedures
  - b. These fundamentals should also be reinforced by Trainers during OJT
  - c. Prerequisite training, OJT, and evaluation should also include job-related operating experiences
    - 1) Specific information related to when and where occurred unimportant
    - 2) Focus emphasis on conditions and mistakes leading to event, consequences, and application of lessons learned
  - d. OJT materials (checklist) identify prerequisite training requirements and prerequisites as appropriate
    - 1) Signatures verify trainees meet prerequisites
    - 2) **ASK QUESTION--Where is this information (met prerequisites) obtained? Answer: training records**

- e. Formal classroom training does **NOT** authorize sign-off of a performance item. Trainee must still demonstrate competency on each checklist prior to sign-off
- f. Prerequisite training (**not** qualifications) may be exempted according to station exemption procedure. Note exceptions: some checklist specify no exemption to training.

10. Discuss how to document a qualification checkout.

*Identify “best” OJT and OJE practices*

I. Industry “Best Practices” – best practices have resulted from lessons learned, self-assessments, external evaluations, and “raising the bar” thinking

1. Coaching during the **training** phase

- a. Ask questions to encourage thinking, problem solving, and decision making
- b. Provide suggestions on techniques that work and memory aids
- c. Provide encouragement to build confidence
- d. Present situations that occasionally occur on the job to prepare for the “unexpected”
- e. Repeat explanations/demonstration for difficult concepts or skills

2. Asking questions during a checkout

- a. Questioning should occur only before or after task performance NOT during task performance
- b. Questions should directly relate to task performance requirements NOT explore knowledge beyond the scope of the task performance requirements per procedure
- c. Questions should be used to seek knowledge that cannot be readily assessed via observation, e.g., the basis for a decision or action.
- d. Questions should NOT prompt the Trainee’s decisions or actions
- e. Questions should NOT distract the Trainee
- f. Examples of “prompting” questions
- g. Examples of follow-up questions.

3. Correcting trainee mistakes during the **training** phase.

- a. Correcting mistakes involves:
  - 1) Correct mistakes as they occur, especially if safety-related (don't "knit pick" every item, especially if not significant)
  - 2) Correct one mistake at a time
    - a) Stick with correction until trainee understanding is assured
    - b) Do not jump from correction to correction
  - 3) Use a set pattern
    - a) Establish what is wrong by questioning trainee
      - i) If error apparent, compare bad method to good method

- ii) If not, demonstrate how trainee method differs from correct method
- b) Involve trainee in analyzing error
  - i) Have trainee figure out where mistake occurred
  - ii) Intervene only if trainee has a lot of trouble
  - iii) If error has no effect on quality, ask trainee to analyze why his method not used--may be slower, clumsier, less safe, etc.
- c) Demonstrate correct performance
  - i) Could be all or part of demonstration
  - ii) May require full explanation again
- d) Let trainee try again
  - i) Assure trainee understands mistake
  - ii) Should repeat more than once
  - iii) If same mistake is made, may require repeat of analysis
- e. Summarize each correction
  - i) Most effective when each is summarized separately
  - ii) Summary of instructors' and trainees' experiences
  - iii) Helps commit trainee to correct performance

#### 4. Maintaining trainee control

*Cover Japanese fishing boat and submarine accident*

### **J. Distractions must be avoided during OJT and OJE**

1. Problem: According to testimony from a Navy investigator, a senior officer who was visiting the USS Greenville on February 9, 2001 should have realized that corners were being cut and distractions were around before the submarine collided with and sank a Japanese fishing boat.

According to the preliminary investigations, the submarine crew was so consumed with putting on a good show for the civilians who were on board that standard procedures were ignored. Rear Admiral Charles Griffiths, who investigated the accident, stated in testimony that the following procedural mistakes were made aboard the USS Greenville before it collided with a Japanese fishing vessel:

- a. The emergency surfacing drill was done 43 minutes behind schedule because lunch with civilian guests ran over, in part because Commander Scott Waddle was chatting with the visitors.
- b. The late schedule apparently prompted Waddle to rush through preparations for the surfacing drill. Waddle ordered his crew to get to periscope depth in five minutes, despite procedures that require at least 10 minutes to check for surface vessels.
- c. A sonar display that allows the commander and the officer of the deck to monitor the surface vessels from the control room was inoperable. Officers



decided to defer repairs until the submarine returned to port because it was "too disruptive" to fix the equipment at sea.

- d. A sonar officer who was supposed to be monitoring a trainee in the sonar room spent much of his time serving as a tour guide for the guests. The sonar operators track surface vessels.
- e. The fire control technician, who plots the progress of surface vessels detected by sonar, had data showing the Japanese boat was within 5,000 yards of the submarine as it went to periscope depth. However, he didn't tell the commander or the officer of the deck because civilians were standing between him and the officers.
- f. Unfortunately, this incident resulted in several Japanese high school students losing their lives.

K. Distractions or inattentiveness on part of operator caused or added to problems

L. Conclusion

1. OJT and OJE require

- a. Adequate training and evaluation of trainee
- b. Most important—safety of plant and public must be maintained
- c. Distractions must be avoided
  - 1) Especially when trainees are involved in a reactivity manipulation
  - 2) Shift turnovers and surveillance testing should not be allowed during manipulations
- d. **OJT trainer/evaluator is responsible for both his and trainees' actions during OJT and OJE (trainee control)**
  - 1) Must maintain attention to all facets of operation
  - 2) Inadequate reactivity control has potential for damaging core

*Ask for other examples of tasks that require close supervision of trainees (e.g., refueling operations, explosive gases, off-site releases, sensitive instrumentation).*

2. Controlling distractions

- a. Expect distractions
- b. Control distractions

3. Reinforcing trainee behaviors during **training** phase

- a. Provide the what and the why of the correct behavior
- b. Positive reinforcement improves performance
- c. Too much reinforcement diminishes trainee confidence
- d. Reinforce during OJT but following OJE

M. Instructor Demonstration

- 1. Instructor will conduct a simple OJT and/or OJE demonstration using the Four-Step Method appropriate for the trainee population (Example: How to use overhead projector, create a child's toy, build an airplane, do a magic trick, shoot a basket).

- a. Have a volunteer role-play the trainee
  - b. Make some mistakes
  - c. Make them think about problems with demonstration
  - d. Point out the importance of trainer preparation
  - e. Emphasize the difference between the training phase (first three steps) and the evaluation phase (the fourth step)
2. Stress questioning from trainees after completion
    - a. What was good about demonstration
    - b. What could have been done better
  3. Review the sample evaluation document that corresponds to the demonstration subject.
- N. Participant Review of Knowledge Items (objectives with an asterisk) - Team Exercise - “Oral Questioning”

Hand out paper copies of Evaluator Guides (PT-OJT/OJE-01 and/or PT-OJT/OJE-02) and site procedure for conducting OJT and OJE. Inform participants that they may refer to Evaluator Guides and site procedure during practice and evaluated exercise.

O. Participant Practice of Four-Step Method

Note: Participants who have had sufficient exposure to OJT and OJE as receivers or providers of OJT and OJE may waive the practice session; however, they should be informed that failure of the Practical Exercise will necessitate remediation and retesting.

1. Participants will each prepare and conduct either the OJT or OJE phase using one of the demonstration topics (may be the same as the instructor demonstration or another subject).
2. Observe the practice and provide coaching and feedback as needed.

## SUMMARY

- A. Review key points of objective
- B. Invite and respond to students' questions

## EVALUATION

- A. The participant will be given a written test based on Enabling Objectives 1-10 from questions maintained in the test data bank
- B. The participant will conduct an OJT and OJE demonstration according to the guidance provided in Appendix A to demonstrate mastery of the Terminal Objective.

# A

## PRACTICAL EXERCISES

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Note: ESP students should complete Exercise I or II. All others should complete Exercise I.

### EXERCISE I

1. Participant will prepare and conduct a proper OJT and OJE demonstration (on a self-selected task or skill with limited scope—30 minutes is the suggested limit) for his/her specific area (if practical) using the Four-Step Method of conducting OJT and OJE. The participant may refer to the Evaluation Guides (PT-OJT/OJE-01 and PT-OJT/OJE-02) and the participant's site procedure for conducting on-the-job training and On the Job Training Evaluation during the demonstration.
2. Allow one-hour preparation time (Step 1 of Four-Step Method).
3. Participant locates reference materials, for example:
  - Procedure
  - Lesson plans
  - Equipment manuals
  - QCC and Answer Guides
4. Verify that participant is ready to conduct the OJT and OJE demonstrations. Direct him/her to commence as appropriate.

Note: Steps 5 and 6 may be implemented following the OJT demonstration and then again following the OJE demonstration.

5. Evaluate participant's performance using Evaluator Guides (PT-OJT/OJE-01 and PT-OJT/OJE-02) and submit with course roster.
6. Provide feedback to participant
  - Good points and bad
  - Do not embarrass participant
  - Give constructive criticism

## EXERCISE II

1. Participant will select a Training Guide (TG) and one task on the TG and prepare to explain step-by-step how to conduct a proper OJT and OJE for the self-selected task in terms of the Four-Step Method of conducting OJT and OJE. The participant may refer to the Evaluation Guides (PT-OJT/OJE-01 and PT-OJT/OJE-02) and the participant's site procedure for conducting on-the-job training and On the Job Training Evaluation during the demonstration.
2. Allow one-hour preparation time (Step 1 of Four-Step Method).
3. Verify that participant is ready to conduct the OJT and OJE demonstrations.
4. Ask participant to explain how to conduct a proper OJT and OJE for the self-selected task in terms of the Four-Step Method of conducting OJT and OJE.

Note: Steps 5 and 6 may be implemented following the OJT talk-through and then again following the OJE talk-through.

5. Evaluate participant's performance using Evaluator Guides (PT-OJT/OJE-01 and PT-OJT/OJE-02) and submit with course roster.
6. Provide feedback to participant
  - Good points and bad
  - Do not embarrass participant
  - Give constructive criticism



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