



PRESENTATION GUIDES

WED 474 - Individualizing HPI

by

Richard F. Bortz

Department of Workforce Education
and Development

Spring 2009

Copyright © 2009 by Training Systems Designers, Carbondale, Illinois. All rights reserved. No part of the material protected by this copyright notice may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, without written permission from the copyright owner.

Table of Contents

| | |
|--------------------------|---|
| I. Orientation | 1 |
|--------------------------|---|

| | | |
|-------|--|----|
| II. | Objective #1 - HPI Program Development Process | 3 |
| III. | Objective #2 - HPI Program Development Worksheet Series <u>En route Objectives</u> | |
| | A. Task Listing Sheet | 6 |
| | B. Task Analysis Sheet | 7 |
| | C. Performance Step Analysis Sheet .. | 11 |
| | D. Learning Objective Sheet | 13 |
| | E. Learning Module | 18 |
| IV. | Objective #3 - Course/Unit Syllabus | 25 |
| V. | Objective #4 - Learning Activities Development Sheet | 26 |
| VI. | Objective #5 - Introduction | 27 |
| VII. | Objective #6 - Knowledge Acquisition Learning Materials | 28 |
| VIII. | Objective #7 - Knowledge Review | 30 |
| IX. | Objective #8 - Knowledge Test | 32 |

| | | |
|-------|---------------------------------------|----|
| X. | Objective #9 - Demonstration | 34 |
| XI. | Objective #10 - Practice | 36 |
| XII. | Objective #11 - Performance Test | 37 |
| XIII. | Objective #12 - Identification Labels | 39 |
| XIII. | Closure | 40 |

Presentation Guide

Orientation

WED 474

Visuals

A. Name and title of course

0.1

B. Administrative Considerations

1. Roll

2. Location of class meetings

3. Days of meetings/holidays

4. Timekeeper

5. Student information cards

6. Course product/appearance/
academic portfolio

7. Grading

**Grade
Sheet**

C. Class Introductions

D. Learner's and Instructor's Guide

1. Syllabus

2. Course Product Outline

3. Assignment Sheets (8, 9, 11)

a. Dates

- b. Reading assignments completed
before coming to class
- c. Discussion topics parallel objectives
- 4. Organization of “Unit” (pp 13-27)
 - a. Introduction (p 13)
 - b. RPO/LOLA (pp 22-23)
 - c. Developmental worksheets (p 24-25)
 - 1) Coordinated with visuals discussed
in class
 - d. Rationale sheet (p 27)

E. Miscellaneous

- 1. Try doesn't count
- 2. “Monkey business”
- 3. Starkweather
- 4. Language Skills
 - a. Reading
 - b. Writing
 - c. Listening
 - d. Speaking
- 5. Retention curve
- 6. Award what is earned
- 7. 90% don't come by
- 8. It is a business

Presentation Guide

Unit One - Review

Visuals

Objective #1 - Review the HPI Program Development Process

A. Review LOLA

p 15

B. “Blackbox”

Drwng

1. Components

- a. “Blackbox” (central component)
 - 1) “Entrance” and “Exit”
 - 2) Names
 - a) “Blackbox”
 - b) Treatment
 - c) Change agent
 - (1) David Williams
 - d) Behavior modification unit
 - e) Performance improvement element
 - f) The curriculum in its various forms
 - g) “Means”
 - h) Learningplace
 - i) An “instructional organization”
- b. “Student”

- 1) Adult learner
- 2) “KASH” formula
- c. Prerequisites
- d. “Graduate”
 - 1) “KASH +”
 - 2) “+” / “ends”/HPI
- e. ROI/“Performance transfer”
 - 1) Retrospect of HPI from the workplace

C. HPI Program Development Process

1. Workplace-Learningplace Concept

**Two
circles
1.1**

2. Three Phases

a. Analysis

- 1) Workplace words
- 2) Occupational **structure**?
- 3) Worker **do**?
- 4) Need to **know**?

b. Conversion

- 1) Word transition
- 2) Structure transition
- 3) Activity transition
- 4) Knowledge transition

c. Implementation/Development

- 1) Learningplace words
- 2) Programmatic materials
3. HPI Program Development Process **pp 16-7**

Presentation Guide

Unit One - Review

Visuals

Objective #2 - Write Selected HPI
Program Development Worksheets

A. En route Objective #1 - Write a Task
Listing Sheet

B. Review RPO/LOLA

pp 22-3

C. Purpose - **Establish the basis for**
developing a *competency-based*
HPI program

D. Components

1. Task Listing Sheet
2. Identify one task

E1.1

E. Definition/Characteristics

E1.2

F. Sample Tasks

E1.3

Presentation Guide

Unit One - Review

Visuals

Objective #2 - Write Selected HPI
Program Development Worksheets (cont'd)

A. En route Objective #2 - Write a Task
Analysis Sheet

B. Review RPO/LOLA

p 29-30

C. Purpose - **Establish the basis for**
developing *knowledge and performance-*
related learning activities of a learning
objective.

D. Components of the Task Analysis Sheet

E2.1-2

1. Title

2. Heading

3. Body

a. Performance steps

b. Standards of Performance

c. Technical Information Topics

d. Tools/Equipment

e. Materials/Supplies

- f. Computer Software
- g. Technical References

E. Performance Steps

1. Definition **E2.3**
2. Content of performance-related learning activities, i.e., demonstration, practice, performance test
3. Verb-noun
4. Summative
5. Sequential/mutually exclusive
6. Examples

F. Standards of Performance

1. Definition **E2.4**
2. Not “how to”
3. **NO** introductory verb
4. **Response to the question**, “when is the performance step done correctly?”
5. 1:1 ratio; PS/SofP
6. “Bullet” statements
7. One or more phrases/statement

G. Technical Information

1. Definition **E2.5**

2. Source of content for **knowledge-related** learning activities, i.e. knowledge acquisition, knowledge review, knowledge test
3. Relationship to task
4. Judgment-forming, decision-making ability; informed decision
5. Head-Hand Theory
6. “Task specific” technical information
 - a. **“MUST KNOW”** to do
 - b. Directly related to task
 - c. If appropriate, always considered “technical”
 - 1) Terminology
 - 2) Safety
 - 3) Legal
 - d. Examples
 - 1) Anecdote: wiring plug on pump at lake

E2.6**H. Tools/Equipment**

1. “Hardware” worker has to perform task
2. Differentiate tools and equipment
3. Capital, 3 years, non-expendable
4. Mowing example

I. Materials/Supplies

1. Materials/supplies worker has to perform task
2. Differentiate materials and supplies
3. Commodities, expendable
4. Mowing example

J. Computer Software

1. Software needed by the worker to perform the task

K. Technical References

1. Informational sources worker has available for reference
2. Books, manuals, charts, microfiche, web site

Presentation Guide

Unit One - Review

Visuals

Objective #2 - Write Selected HPI
Program Development Worksheets
(cont'd)

A. En route Objective #3 - Write a
Performance Step Analysis Sheet

B. Review RPO/LOLA

p 35-36

C. Purpose - **Establish the basis for**
Continuing the development of the
performance-related learning activities
of a learning objective.

D. Components of Worksheet

E3.1

1. Title

2. Heading

3. Body

a. Performance Step Details

b. Standards of Performance

E. Performance Step Details

1. Definition

E3.2

2. Source of content of **performance-related** learning activities, i.e., demonstration, practice, performance test
3. “Steps of a step”
4. Verb-noun
5. Sequential
6. Summative
7. Examples

F. Standards of Performance

1. Definition
2. Not “how to”
3. **NO** introductory verb
4. **Answer to question**, “when is the performance step detail done correctly?”
5. More specific
6. 1:1 ratio; PS/SofP
7. “Bullet” statements
8. One or more phrases/statement

Presentation Guide

Unit One-Review

Visuals

Objective #2 - Write Selected HPI
Program Development Worksheets
(cont'd)

En route Objective #4 - Write a Learning
Objective Sheet

A. Review RPO/LOLA

p 35-36

B. Purpose - Continue the process of
establishing a *competency-based*
HPI program

C. Components of Worksheet

p 44

1. Title

2. Heading

3. Body

a. Title

b. Performance Conditions

c. Desired Behavior

d. Evaluation Criteria

D. Four Steps to Creating Objective

E4.1

1. *Identify* an activity
2. *Establish* the performance conditions
3. *Cast* the activity into the future
(desired behavior)
4. *Establish* the evaluation criteria

E. Types of Learning Objectives

1. Continuum
2. Expanded version - *More* complex
3. Basic version - *Less* complex
4. Hybrid

F. Expanded Learning Objective

p 44

1. Title
 - a. Mirrors task title
2. Performance Conditions
 - a. Environment Statement
 - 1) Optional
 - 2) Workplace/Learningplace
 - b. Hardware
 - 1) Required
 - 2) Tools/equipment/materials/
supplies
 - 3) Common basic/expanded
 - 4) Task Analysis Sheet

5) Workplace/Learningplace

c. Software

- 1) Optional
- 2) Technical references
- 3) Learning aids
- 4) Task Analysis Sheet
- 5) Workplace/Learningplace

d. Miscellaneous

- 1) Optional
- 2) “. . .in the presence of the instructor”
- 3) “. . . with a partner”

3. Desired Behavior

- a. First appearance of the learner in the HPI program development process
- b. “Cast the activity into the future”
- c. “The learner will. . .”

- 1) Phrase establishes basic paradigm

E4.2

a) Point “A” ~ Point “B”

- (1) Point “A” - Learner in the *present*
- (2) Point “B” - Learning objective in the *future*
- (3) Relationship of learner to learning objective

defined in terms of *time* and *space* with writing of *desired behavior* component of learning objective; that is, the “casting of the activity into the future.”

(4) Symbiotic Relationship

(a) Concept of “learner” becomes a reality with creation of learning objective; “you can’t have one without the other.”

2) Personalize

3) Integrate

d. *Interesting question*: Do you have another learning objective if the *desired behavior* statement remains the same, but the *performance conditions* change?

4. Evaluation Criteria

a. Product Statement

1) **WHEN** objective **DONE**
CORRECTLY?

2) Common basic/expanded

3) Synergistic effect

- 4) Present tense
- b. Process Statement
 - 1) Past tense
- c. Oral Quiz
 - 1) Knowledge test
 - 2) Past tense
- d. Time
 - 1) Basis - experienced practitioner
 - 2) Quantitative
 - a) Absolute #
 - b) Range
 - 3) Qualitative
 - a) Reasonable time
 - 4) Past tense
- e. Repetitions-over-time
 - 1) Retention curve
 - 2) Confidence
 - 3) Past tense
- 2. Basic Objective **p 60**
 - a. Less complex
 - b. Common elements
 - 1) Performance conditions
 - a) Hardware statement
 - 2) Evaluation Criteria
 - a) Product statement
- 3. Hybrid Objective **p 62**

Presentation Guide

Unit One - Review

Visuals

Objective #2 - Write Selected HPI
Program Development Worksheets (cont'd)

En route Objective #5 - Write a Learning
Module

A. Review RPO/LOLA

pp 66-7

B. Two-fold purpose - To identify and
organize *knowledge and performance-*
related learning activities for a given
learning objective and to *establish a*
basis for developing instructor-led,
individualized or hybrid learning
materials

C. Components of the Worksheet

p 70

1. Title

2. Heading

a. Components

b. Programmatic

c. Derived from . . .

3. Body

- a. Learning objective
- b. Learning activities

D. Basic Paradigm (En route Objective #3) **E5.1**

1. Point “A” ~ Point “B”

- a. Point “A” - Learner in *present*
- b. Point “B” - Learning objective in *future*
- c. Symbiotic Relationship

2. Components

a. Learner

- 1) “•”
- 2) Learner defined by objective
- 3) Located in “present”
- 4) Definition: *Can’t do, but wants to*

b. Learning Objective

- 1) Derived from task
- 2) Located in “future”

3. Challenge **E5.2**

E. Basic Organizational Model

1. Learning Activities

a. Definition **E5.3**

- b. Order **E5.4**
- 1) Defined order or random?
 - a) TAS/technical information
 - 2) Overall sequence
 - a) *Knowledge-related* learning activities **precede** *performance-related* learning activities
 - 3) Within sequences
 - a) *Knowledge acquisition* learning activities **precede** *knowledge review* and *knowledge test*
 - b) *Demonstration* **precedes** *practice* which **precedes** *performance test*
- c. Phrasing **E5.5**
- 1) Number of activity
 - 2) Verb/noun phrase
 - a) Learner-oriented verb
 - 3) Estimated Time
 - a) Individual learning activities
 - b) Total
- d. Knowledge-related Learning Activities
- 1) Philosophic consideration
 - a) “Information” vs “knowledge”
 - (1) Information

- (a) Environmental stimuli
 - (b) “Out there”
- (2) Knowledge
 - (a) Information that has been assimilated”, “internalized”, “processed”,
 - (b) “Inside”
- 2) Emphasis on knowledge
- 3) Derived from Technical Information Topics section, TAS
- 4) Head-Hand Theory (review)
 - a) Cognitive-motor
 - b) “Control towers”
- 5) Types
 - a) Knowledge *acquisition*
 - (1) Activities in which learner acquires requisite information
 - (2) Examples
 - (a) Read. . . .
 - (b) Take fieldtrip. . . .
 - (c) Listen to guest presenter. . .
 - (d) View videotape . . .

- b) Knowledge *review*
 - (1) Illustrated presentation-discussion
 - (2) Source of content
- c) Knowledge *test*
 - (1) “Pass”?
 - (2) Where academia stops!!!
 - (a) Faulty assumption: if you know, you can do
 - (3) HPI: must address performance
- e. Performance-related Learning Activities
 - 1) Derived from performance steps, standards of performance sections, TAS
 - 2) Cognitive/motor behavior
 - b) Control towers
 - 3) Emphasis on performance
 - 4) Types
 - a) Demonstration
 - (1) Knowledge acquisition learning activity with emphasis on performance
 - (2) “Gather around, boys. . . .”
 - (3) Focus on “how to do”

b) Practice

(1) *Marriage, wedding, union*
of knowledge and performance

(2) Timeline

(a) Performance early in
practice

(b) Performance near end
of practice

c) Performance test

(1) Emphasis on performance

(2) Process, product

(3) “Pass?”: “Under these
conditions, the learner did
this activity, this well”

f. Summary Question **E5.6**

g. Sequence of Learning Activities **E5.7**

h. Learning Objective with Learning
Activities **E5.8**

F. Adaptations of Basic Organizational Logic

1. Knowledge-related learning activities

a. “Pretest”

b. “post-test” review

c. KA+KA+KR+KT; ~ KA+KA+KR. . . .

2. Performance-related learning activities
 - a. Nurses/orange example
 - b. D_{1-4} , P_{1-4} , PT_{1-4} ; $\sim D_{5-11} \dots$
3. Multiple sequence approach
 - a. Adapting to needs of special populations

G. Instructional Delivery Mediums

1. *Instructor-led*
2. Individualized
 - a. *Print-based*
 - b. Computer-based
 - 1) *Instructional CD-ROMs*
 - 2) *Instructional websites*
3. *Hybrid*
4. Other
 - a. Simulation
 - b. Virtual reality

H. Completion of Spiral Concept

Presentation Guide
Unit Two - Administrative
Curriculum Materials

Visuals

Objective #3 - Write a Course/Unit
Syllabus (Abbreviated)

B. Review RPO/LOLA

pp 92-3

C. Purpose - Introduce the purpose,
goals, learning objectives, and
course product(s)

D. Components of Syllabus (abbreviated)

3.1

1. Purpose
2. Goals
3. Prerequisites
4. Learning Objectives
5. Learning Module

Presentation Guide
Unit Two - Planning

Visuals

Objective #4 - Write a Learning
Activities Development Sheet (optional)

A. Review RPO/LOLA

p99-100

B. Purpose - Assist in planning and
development of learning activities
package

C. Components of Sheet

1. Title
2. Heading
3. Body
4. Agreement/contract

Presentation Guide
Unit Three - Implementation

Visuals

Objective #5 - Prepare an Introduction

A. Review RPO/LOLA

p107-8

B. Purpose - Inform reader about learning “package” and guide process of attaining objective

C. Introduction

1. “Syllabus” for the learning package

2. Components

5.1

a. Purpose

b. Goals

c. Prerequisites

d. Learning Objective

e. Directions

f. Learning Activities

Presentation Guide

Unit Three - Implementation

Visuals

Objective #6 - Prepare Knowledge Acquisition Learning Materials

A. Review RPO/LOLA

p114-5

B. Purpose - Provide learner with technical information needed to perform objective

C. Organizational Model

6.1

D. Relationship to Task Analysis Sheet

E. Types of knowledge acquisition learning activities

F. Types of Instruction Sheets

1. Information Sheet

6.2

a. Title

b. Linking statement

c. Body

d. References

| | |
|----------------------------------|--------------|
| 2. Information-assignment Sheet | 6.3-4 |
| a. Title | |
| b. Linking statement | |
| c. Body | |
| d. Assignment | |
| e. References | |
| 3. Assignment Sheet | 6.5 |
| a. Title | |
| b. Linking statement | |
| c. Introduction | |
| d. Assignment | |
| 4. Existing Materials | |
| | |
| G. Continuous Text | |
| 1. Headings | 6.6 |
| 2. “Levels” (APA) | |
| | |
| H. Factors Affecting Readability | 6.7 |
| | |
| I. Readability Formulae | 6.8 |
| | |
| J. Process | 6.9 |
| 1. Exercise #1 | 6.10 |
| a. Results | 6.11 |
| 2. Classroom exercise #2 | 6.12 |
| 3. Considerations | 6.13 |

Presentation Guide

Unit Three - Implementation

VisualsObjective #7 - Prepare a Knowledge Review

- | | |
|--|----------------|
| A. Review RPO/LOLA | p 127-8 |
| B. Purpose - Review technical information in preparation for related knowledge test and presentation of new related information (optional) | |
| C. Organizational Model | 7.1 |
| D. Relationship to Task Analysis Sheet | |
| E. Illustrated Presentation | 7.2-3 |
| F. Sources of Content of the Knowledge Review | 7.4 |
| G. Learning and the Five Senses | 7.5 |

H. Illustrated Presentation Guide

7.6

1. Components

- a. Title
- b. Linking statement
- c. Body
 - 1) Presentation topics
 - 2) Visuals/tangibles
 - 3) Topics articulated/
supplemented with
visuals
 - 4) Font (22-24 point)
 - 5) White space

Presentation Guide
Unit Three - Implementation

Visuals

Objective #8 - Write a Knowledge
Test with Answer Key

A. Review RPO/LOLA

p 132-3

B. Purpose - Determine knowledge
retained by learner and that
which needs additional review
and study

C. Organizational Model

8.1

D. Relationship to Task Analysis Sheet

E. Components of Knowledge Test

8.2

1. Title

2. Linking Statement

3. Introduction

4. "Block"

a. Directions

b. Example (optional)

c. Test items

5. Answer Key

- F. Knowledge-based Test Items** **8.3**
1. Objective Items
 - a. True-False
 - b. Multiple Choice
 - c. Completion
 - d. Short Response
 - e. Matching
 2. Subjective Test Items
 - a. Essay
 - 1) Short essay
 - 2) Long essay

Presentation Guide

Unit Three - Implementation

Visuals

Objective #9 - Prepare a Recorded or Written Demonstration

A. Review RPO/LOLA

p 140-1

B. Purpose - Show the learner the process of “how to” performing the objective

C. Organizational Model

9.1

D. Relationship to Task Analysis Sheet

E. Demonstration

9.2-3

F. Sources of Content for a Demonstration

9.4

G. Demonstration Outline

9.5

1. Guide for instructor

2. Components

a. Title

b. Learning Objective

c. Equipment and Supplies

d. Procedure

- 1) Performance steps
- 2) Standards of performance

H. Procedure Sheet

9.5-6

1. Demonstration “on paper”
2. Components
 - a. Title
 - b. Learning Objective
 - c. Equipment and Supplies
 - d. Procedure
 - 1) Performance step (TAS)
 - 2) Narrative with figures (PSAS)
 - 3) Standard of performance (TAS)

Presentation Guide

Unit Three - Implementation

VisualsObjective #10 - Prepare Practice Materials

A. Review RPO/LOLA

p 146-7

B. Organizational Model

10.1

C. Practice

1. Rationale

10.2

2. Evolution

10.3

3. Variables

10.4D. Individual responsibility for design
of activity

Presentation Guide

Unit Three - Implementation

Visuals

Objective #11 - Write a Performance Test

A. Review RPO/LOLA

p 150-1

B. Purpose - Evaluate learner's ability to perform objective

C. Organizational Model

11.1

D. Relationship to Task Analysis Sheet

E. Components of a Performance Test

11.2

1. Title

2. Linking statement

3. Body of the Test

a. Directions

b. Evaluation Scales

c. Reflects content of "Evaluation Criteria" statement of the learning objective

d. Entries

- 1) Product Evaluation (required)
- 2) Process Evaluation (optional)
- 3) Time (optional)
- 4) Repetitions-over-time (optional)

4. Performance Certification

- a. Instructor's and learner's
signatures

Presentation Guide

Unit Three - Implementation

Visuals

Objective #12 - Create Identification Labels

A. Review RPO/LOLA

p 158-9

B. Purpose - Establish a means of identifying the package and its components

C. Labeling

12.1

1. Package Label
2. Contents Label
3. Prerequisites
4. Logo

D. Application

1. Purpose
2. Content
3. Location

E. Coding

1. In relation to learning activities sequence
2. So user “doesn’t get lost”

Presentation Guide

Closure

WED 474

A. Preparation of Learning Activities Package

1. Resource Guide

- a. Cover
- b. Binding
- c. Sections/section pages/dividers
- d. Pagination

2. Learning Activities Package

- a. Coding of entries with learning activities sequence
- b. Written materials
 - 1) Under one cover
 - 2) Better materials management
 - 3) Reduces loss, confusion, damage

3. Copyright

- a. Copyright statement
- b. Location
- c. Common law/Statutory

4. Return of Packages

- a. Time
- b. Location

B. Review for Examination

1. Phases

1.1

2. HPIPDP Flowchart

C. Instructor-Course Evaluation