Write Complex Lesson Plans

OBJECTIVES

• Write lesson plans that involve multiple segments of instruction.
Complex Lesson Plans

- A complex lesson plan is one in which the performance objective is more complex and would require two or more segments on instruction.
  - Explain -- Activity -- Summary
  - Show -- Show/Tell -- Check -- Practice
  - Includes two or more of the above segments

Remember -- Lesson Plans Include . . .

- Introduction - Anticipatory Set
  - State PO
  - Check understanding
  - Check prior knowledge (Pretest)
  - Explain why important to them
- EAS or SSTCP segment 1
- EAS or SSTCP segment 2
- Evaluation (Post Test)
- Conclusion
- References
Let’s look at a Complex Lesson Plan

• It has to have an Introduction

Title: Operate a Nikon COOLPIX 100 camera.

PO: Given a Nikon COOLPIX 100 camera, place the camera in operation according to Nikon Digital Camera E100 User Manual, pages 10-19.

<table>
<thead>
<tr>
<th>Content</th>
<th>Activities/Tips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro:</td>
<td>Show PPt Slide 2, Objective</td>
</tr>
<tr>
<td>State the PO.</td>
<td>Pre-Test</td>
</tr>
<tr>
<td>Check their understanding</td>
<td></td>
</tr>
<tr>
<td>Explain why it is important to learn.</td>
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<tr>
<td>Check for prior knowledge.</td>
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</tbody>
</table>

Body/Content

Observe precautions.
• Do not touch the lens with your fingers
• Do not drop
• Keep away from strong magnetic fields
• Keep dry
• Keep free of salt, sand, and dust
• Avoid sudden changes in temperature

Before You Begin
  o When you turn the camera on, check the battery level indicator in the control panel to determine whether the batteries need to be replaced.
  o Replace the batteries with AA alkaline batteries. Do not use nickel-cadmium batteries.

• When taking pictures outside in cold weather, keep a spare set of warm batteries on hand.

Put batteries in camera.
• To insert batteries in your camera, first remove the battery cover.
• Slide the cover off as shown in the following illustration.
• Next insert the batteries as shown below. Use only AA alkaline batteries.
• Slide the battery cover back on, being careful not to catch your fingers in the latches. You should hear a “click” when the latches close.
• Note: Make sure that the camera is off before changing the batteries.

Use PPt Slides 3 and 4, Cautions as you:

Explain precautions.

Activity: Pass out Check Sheet “Camera Cautions” and have students complete it.

Summary: Go over check sheet and point out what happens if precautions are not followed.

Show how to put batteries in camera.

Have students get out their cameras and follow step by step as you show and tell how to put the batteries in the camera. Show PPt Slide 5.

Check understanding by asking:
• What kind of batteries should you use?
• What should be the indication that the latch is closed?
• Is it OK to change batteries when camera is on?

Have students practice putting batteries in the camera.
Has a Summary, Evaluation, Conclusion, and References

October 14, 2007

Summary:
- Review the steps to putting the camera into operation.
- Go over the precautions.

Evaluation:
- Post Test -- Have the students put the Nikon COOLPIX 100 camera into operation according to the performance objective standard.

Conclusion:
- Link this lesson to the next one: Composing pictures for the COOLPIX 100 camera.
- Conclude

References:

Notes:
- Powerpoint slides for this lesson are located at the following web site: www.lions.odu.edu/~dnethert/Courses/oted400/COOLPIX_powerpoint.htm
- The Task Detail sheet used for this lesson is located at the following web site: www.lions.odu.edu/~dnethert/Courses/oted400/COOLPIX_taskdetail.doc

Attachments

COOLPIX 100 Camera Cautions

Activity Sheet

To ensure that your COOLPIX 100 Card camera continues to operate properly, you should also be sure to observe certain precautions. Answer each item correctly.

1. It is OK to touch the lens of your COOLPIX 100 camera.
   True  False

2. If you drop your COOLPIX 100 Card camera it may malfunction.
   True  False

3. Magnetic fields have little effect on the COOLPIX 100 camera.
   True  False

4. The magnetic fields produced by equipment such as radio transmitters or household television sets will not affect your camera’s internal memory and functioning.
   True  False

5. The COOLPIX 100 camera can be damaged if immersed in water or exposed to high levels of humidity.
   True  False

6. If you have taken your COOLPIX 100 camera to the beach, you should wipe off any sand or salt with a damp cloth and then dry your camera thoroughly.
   True  False

7. Sudden changes in temperature, such as occur when entering or leaving a heated building on a cold day, can cause condensation inside the camera.
   True  False

B. To prevent condensation, place the camera in a paper bag.
   True  False
You can find a complex lesson plan on the web page

- Look for the link under the Lesson Plan Examples Link.

- http://www.lions.odu.edu/~dnethert/Courses/oted400/lesson_plans/COOLPIX_lesson_plan.doc

Analysis Phase of ISD
Task Analysis
The DACUM
Cognitive Task Analysis

Lecture 5
OTED 400
A Little Review First

• What are the five phases of the ISD System?
• What are the eight different analysis we do in ISD?

• Needs Analysis
• Problem Analysis
• Goal Analysis
• Population Analysis
• Resource Analysis
• Constraints Analysis
• Job Analysis
• Task Analysis
Objectives

• Perform a task analysis
• Explain the DACUM Process

The Task Analysis

Task Listing
Task Detailing
• The Job Description is the first thing you look at before developing the Task Analysis.

Task Analysis

• Always start with the information you get in a Job Analysis.

• Then you do a Task Listing
  § This is a list of all the tasks a worker does on the job

• And then you do a Task Detailing
  § A list of steps a worker does to perform each task.
Performing the Task Analysis

- Begin with the Job Description
  - A general description of what a person does on the job.

- Do the Task Listing
  - Listing all the tasks a person does on the job

- Do the Task Detailing
  - Listing the steps a person goes through when forming a task. Sometimes called the "performance steps."

Task Listing

- First list ALL the tasks that might be included in the job.
  - While you can list many, a well designed training course requires a thorough analysis.
  - You will need to talk with individuals now working at the job, or watch them actually doing the job.
    This help you to avoid a serious trap... loading the course with irrelevant content.
Doing the Task Listing . . .

- Talk with people who **actually do the job**.
- Talk to the supervisor who will tell you what it **ought to be**.
- Use your judgment as to which tasks are **reasonable** to include in your list based on probability of need.

Doing the Task Listing
The Questions:

- What important things do you do?
- What do you do first thing.
- What do you do next?
- What do you do last thing each day?
- What do you do once a week? month, year?
- What do you do for customers? suppliers?
- Look at this list. Are there other things you do? Or things others in your job do?
Task Listing Example 1
Job: Service Station Mechanic-attendant

1. Replace spark plugs.
2. Adjust and bleed brakes.
3. Replace wheel cylinders.
4. Inspect and flush radiators.
5. Test antifreeze.
6. Repair tube or tubeless tires.
7. Rotate tires.
8. Lubricate vehicles.
10. Replace air cleaners.
11. Clean or replace gas filters.
12. Wash and wax autos.
14. Replace oil filters.
15. Check oil, brake fluid, power steering, other fluids.
16. Wash windsheilds, replaces blades.
17. Fill gas tanks, radiators.
18. Maintain daily records of sales, inventory changes.
19. Order supplies.
20. Open and close station.

Listing the Tasks

- Note:
  - Task statements begin with an active verb.
  - Clean or replace spark plugs.
  - Adjust and bleed brakes.
  - Replace wheel cylinders.
  - Inspect and flush radiators.
  - Test antifreeze.
The second step in the task analysis is:

- list each of the steps involved in performing each of the tasks in terms of what is done, rather than in terms of what must be known.
- The performance steps should also begin with an active verb.

Task Listing
Service Station Attendant
1. Clean or replace spark plugs.
2. Adjust and bleed brakes.
3. Replace wheel cylinders.
4. Inspect and flush radiators.
5. Test antifreeze.
6. Repair tube or tubeless tires.
7. Rotate tires.
8. Lubricate vehicles.
10. Replace air cleaners.
11. Clean or replace gas filters.
12. Wash and wax autos.

Task Detail
Clean or replace spark plugs
1. Note the plug location relative to the cylinder.
2. Remove all spark plugs.
3. Identify the type of plugs.
4. Decide whether to adjust or replace plugs.
5. Clean plugs, if necessary.
6. Replace spark plugs in engine.
7. Connect ignition wires to appropriate plugs.
8. Check for performance.
9. Clean tools and equipment.
Again, Task Analysis

- First, start with Job Analysis, review it for content -- verify it.

- Then list **ALL** the tasks required to do the job or perform the skill (Task Listing)

- Then list the steps for each task (Task Detailing).

In the end . . .

- You have one list of all the tasks performed on the job (A Task Listing).

- You have a Task Detail Sheet for each task on the task listing.
Let's see a Task Analysis Done

Start with your Job Description

<table>
<thead>
<tr>
<th>JOB ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>JOB TITLE:</strong> Sales Associate</td>
</tr>
<tr>
<td><strong>COURSE:</strong> Sales Associate Training Course for Merchandisers</td>
</tr>
</tbody>
</table>

### GENERAL DESCRIPTION:
Sales Associates must understand and follow all merchandise, customer service, and community relations. They must strictly adhere to responsibilities for merchandise, furnishings, and fixtures in their departments; sell all customers; maintain merchandise displays; meet inventory needs; and all merchandises. They are expected to demonstrate high personal and professional standards expected of all Marshall's employees.

### DUTIES:
- Maintain the department's appearance.
- Shipped merchandise according to Marshalls merchandising display standards.
- Sell all customers.
- Comply with Marshall's merchandising security policy.
- Maintain merchandise.
- Stock merchandise.

**APPROVED BY SUPERVISOR:**
### Task Analysis Worksheet

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Task Description</th>
<th>REQ</th>
<th>ORT</th>
<th>DFI</th>
<th>VALD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Troubleshoot and repair malfunctioning equipment.</td>
<td>Daily</td>
<td>1</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Read electronic schematics</td>
<td>1-15 per day</td>
<td>2</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Perform basic layouts.</td>
<td>1 per week</td>
<td>2</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Use small hand tools.</td>
<td>Continuously</td>
<td>1</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Check electronic components.</td>
<td>Frequently</td>
<td>1</td>
<td>M-E</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Replace components.</td>
<td>Intermittent</td>
<td>2</td>
<td>E/W</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Inspect various components.</td>
<td>Frequently</td>
<td>2</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Recognize the applicability of electronic test equipment</td>
<td>Intermittent</td>
<td>2</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Interpret test instruments.</td>
<td>Frequently</td>
<td>3</td>
<td>E/W</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Calibrate test equipment.</td>
<td>Monthly</td>
<td>3</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Interpret and record test data.</td>
<td>Intermittently</td>
<td>2</td>
<td>E/W</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Specify and test electronic components.</td>
<td>Frequently</td>
<td>3</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Apply first aid.</td>
<td>Rarely</td>
<td>1</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Maintain and test work areas.</td>
<td>Frequently</td>
<td>2</td>
<td>E</td>
<td></td>
</tr>
</tbody>
</table>

**Approved by Supervisor:**

### Task Detailing Worksheet

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Task Description</th>
<th>DETAIL/STEP</th>
<th>ORT</th>
<th>DFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Note the plug location relative to the cylinders.</td>
<td>1</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Inspect all spark plugs.</td>
<td>1</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Identify the type of plugs.</td>
<td>1</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Decide whether to adjust or replace plugs.</td>
<td>1</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Clean plugs, if necessary.</td>
<td>2</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Adjust plugs, if appropriate.</td>
<td>1</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Replace spark plugs in engine.</td>
<td>1</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Connect ignition wires to appropriate plugs.</td>
<td>1</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Check for performance.</td>
<td>2</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Clean tools and equipment.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Approved by Supervisor:**
The DACUM Process
Developing A Curriculum

Objectives

• Explain the DACUM Process
• Explain what the outcome of the DACUM is.
DACUM: Developing a Curriculum

- An occupational analysis
  - what tasks compose the job
  - what equipment and tools are used
  - what skills, aptitudes, and attitudes are characteristic

The DACUM

- A process of questioning expert workers in a specific occupation to determine the responsibilities, tools, and conditions of their job
- Results in an occupational task list
A DACUM

- A panel of experts identifies tasks using either wall charts or reviewing a preliminary task list.

- Expert workers can describe their jobs better than anyone else.
A Wall Chart of Cards!

**WALL CHARTS/ CARDS**

<table>
<thead>
<tr>
<th>Duties</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A “Wall Chart of Cards”

<table>
<thead>
<tr>
<th>Duties</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide Proactive End User Support</td>
<td>A1 Perform business needs analysis 2 5 4 40</td>
</tr>
<tr>
<td></td>
<td>A2 Evaluate hardware &amp; software products 4 5 3 60</td>
</tr>
<tr>
<td></td>
<td>A3 Recommend software purchases 4 4 2 32</td>
</tr>
<tr>
<td>Provide Reactive End User Support</td>
<td>B1 Answer end user &quot;how to&quot; questions 6 5 4 120</td>
</tr>
<tr>
<td></td>
<td>B2 Diagnose end user problems 6 5 5</td>
</tr>
<tr>
<td></td>
<td>B3 Identify end user problems 6 5 5</td>
</tr>
<tr>
<td>Network Administration</td>
<td>C1 Perform network backups 6 6 1 36</td>
</tr>
<tr>
<td></td>
<td>C2 Maintain system profiles 4 4 1</td>
</tr>
<tr>
<td></td>
<td>C3 Maintain user profiles 5 4 1</td>
</tr>
</tbody>
</table>

October 14, 2007

A DACUM

- **Facilitator** helps panel of workers to come to consensus
- **Facilitator** gathers other related information from panel as time allows
- **Recorder** keeps record of written tasks and other information
A DACUM: The Participants

- Coordinator (Plans/Manages)
- Facilitator (Guides)
- Recorder (Writes)
- Panelists (Describes)

A DACUM: The Panel

- 8-12 persons
- 6-10 front line expert workers
- 2 immediate supervisors
- Workers from various size firms
- Workers currently in the job
  ▪ Not new workers

October 14, 2007
OTED 400, Lec 5, Complex Lesson Plans and Analysis
A DACUM: Panelists

• Generally poor choices:
  ▪ Teachers/Faculty Members
  ▪ Managers
  ▪ Human Relations Managers
  ▪ Trainers/Training Managers

• They get their say later

A DACUM REVIEW

• A process for developing the task list
• Uses a Panel of expert workers
• Uses full-time, current workers
• Guided by a facilitator and info gathered by a recorder
Next Week . . .

• Work on your Lesson Plans.
  ▪ All three are due in one package on

  October 25th

See ya next week . . .