Instructional Models
Instructional Models

Two Basic Instructional Models

Most instructional sessions have one of two basic purposes:

1. To present information (facts, knowledge, or principles).
2. To present and develop physical skills.

The information-oriented sessions teach ideas. Skill-related tasks are taught using the skill session. A different model is needed for each session in order to design and manage learning interventions most efficiently. Often the training topic clearly dictates which model to apply, but sometimes the training topic is more ambiguous and suggests the possibility of applying either (or both) models. For example, a session on "how to complete and fill out" an official form may fall into this middle area. To clarify the training approach, look again at the objective of the session. Do the learners only need to learn how to fill out the form, or must they also understand the reason for the form or how it relates to work processes or communications?

If the objective is to learn how to fill out the form then use a skill session. If the objective is to fill out the form and also to understand the role of the form, then combine a information session explaining the role of the form with a skill session showing how to fill it out. As a matter of fact, it is common to precede a skill session with a information session in which the trainer presents background information for the skill. For this reason, let's first examine the information-session model.

Information-Session Model Structure

You can divide any subject that you wish to present into a learning-appropriate number of logical segments. The segments may be relatively independent, or they may build sequentially one upon the other. In the information-session model, each segment is developed in an EAS step. You might find it quite useful to develop an objective for each segment. Thus as you progress through EAS steps, you can evaluate the training objectives, one by one, as the learners perform an activity that can demonstrate their grasp of the segment. Let's now look more closely at the structure of the model.

1. The Introduction (The Anticipatory Set)

In the introduction, show your learners that the subject of the session is important. If they acquire this knowledge, they can make a contribution to themselves and to the organization. Show them how this particular learning fits into the total picture. They will want a general idea of where they are going. After all, how would you feel if a taxi pulled up to the curb and the driver shouted, "jump in, we're going for a ride." You would at least want to know where you were going. Also, telling the learners what ground they will cover in the session provides a target, establishes appropriate expectations about the content of the session, and allows learners to check progress for themselves.

2. The Body

This is where you transfer the bulk of the information to the learners. Plan to break this into logical segments. A time or priority order may provide the pattern. For example, perhaps one fact may have to be learned before the second fact can be understood. As we have suggested, the easiest method is to form each segment around an objective.

After you define the number and sequence of segments in the body, you can build them into the EAS pattern.

The E (Explanation) step. In this step, you give the learner new facts, or lead them to "discover" the new facts. The easiest and most common method is to "tell" the information. Unfortunately, this is also the least efficient method. Research indicates that learners use only about 11 percent of their learning capacity if you rely entirely on hearing to get the message across. In addition, you will find it difficult to keep their interest long enough. The most satisfactory method is to make use of the learners' sense of sight, along with visual aids. A more difficult method is to use questioning techniques to elicit the information from the learners, but it is well worth the effort, for it guarantees learner interest and motivation.
The A (Activity) step. You have most probably heard of “learning by doing,” and this describes the A step. The A step should closely resemble on-the-job behaviors. This resemblance will increase the meaningfulness of the activity and thus reinforce the message in the E step. For example, if your session is on “Written Communication” and you have explained the structure of a paragraph, then the A step could involve writing a paragraph. In a safety course on common hazards, you might follow the E step with an activity such as identifying hazards present in a work situation. In a session on circuit theory for technicians, you could draw various circuits as an activity. In a session on delegation, you could role play from case studies. In a session on the selling features of a new product, you could use activities that incorporate touching and comparing products.

The A step gives four additional benefits. First, it indicates to the learner how much of the information he or she has retained (and thus points up weaknesses). Second, the quality of the activity tells you whether your E step was satisfactory. After all, why go on to the next explanation if the preceding explanation has not been understood or cannot be used by the learners? Observe the learners very closely during the A step. If they do not demonstrate by their behavior that they have understood the explanation, then repeat the explanation.

Third, the A step separates one explanation from the next explanation and thus stresses structure with continuity.

Finally, if you have made each EAS segment equivalent to one objective, then you have an additional advantage. You may not need a comprehensive test in the conclusion to check your objectives because you have tested each objective in the A step of each EAS segment.

The S (Summary) step. In this step, you bring all the pieces together and tie up loose ends. It also gives you an opportunity to ask for questions from the learners before you go into the next EAS segment.

3. Evaluate Learning

Test to ensure that learning has taken place. Make the test either oral or written, or require some performance activity that will demonstrate to you the level of learning achieved. The test should be based on the performance objective and success should be based on meeting the stated standard.

4. The Conclusion

Undoubtedly, finishing is the hardest job in any session. Your conclusion should incorporate five basic items:

- **Review or recapitulate.** Briefly go over the main items of your topic. Stress important or key points.
- **Link** to subsequent sessions.
- **Clarify.** Allow time for questions to clear up any misunderstandings or problems.
- **Finish.** Leave your learners in no doubt that you are done. For example, ask the question, “Before I finish, do you have any final questions?”

The structure of the information-session model in the simple diagram is on the next page.
Teaching Segments of Knowledge

<table>
<thead>
<tr>
<th>Intro (I)</th>
<th>Explain (E)</th>
<th>Activity (A)</th>
<th>Summary (S)</th>
<th>Evaluate Learning</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anticipatory Set:</strong> You orient, Motivate, Measure current knowledge, State performance objective. Engage the student's prior knowledge and past experiences, state the objective, make sure they all understand it, explain why they should learn the information.</td>
<td>Give the learners new facts, or lead them to discover new facts. Use visual aids (AV slides, video tapes, computer-based models). Ask questions to elicit information from learners.</td>
<td>This is where you have the learners use the information from the Explain step.</td>
<td>Check students, ask questions, &quot;eye ball&quot; students to see if you have their attention, &quot;read&quot; their body language.</td>
<td>Test to ensure that learning has taken place. Use either a oral or written test, or require some performance activity that will demonstrate the level of learning achieved. The test should be based on the performance objective and success should be based on meeting the stated standard.</td>
<td>Review or recapitulate. Briefly go over the main items of your topic. Stress important or key points. Link to subsequent sessions. Clarify. Allow time for questions to clear up any misunderstandings or problems. Finish. Leave your learners in no doubt that you are done. For example, ask the question, &quot;Before I finish, do you have any final questions?&quot;</td>
</tr>
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</table>

*** Intermediate steps of Explanation, Activity, Summary of the segment of information.***

<table>
<thead>
<tr>
<th>E</th>
<th>A</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Explanation step of the segment of information</td>
<td>Last step of Activity</td>
<td>Last Summary step of the segment of information.</td>
</tr>
</tbody>
</table>

Teaching A Short Segment of Information

When teaching a simpler segment of information, which has no significant sub-tasks, you may need to go through only one segment of Explanation, Activity, and Summary.
Teaching Skills Session Model

If you must present a complex task with an objective that covers more than one simple physical activity, then you must use an instructional model that teaches each significant step that makes up the whole skill or task. Take, for example, this objective: "Given a jack, lug wrench and an automobile, change a tire on a car according to the steps outlined in the owners manual." This statement includes a number of sub-objectives:

1. Set out the tools.
2. Take out the spare wheel.
3. Set the emergency brake and block the tires.
4. Jack up the car.
5. Take off the wheel with the flat tire.
6. Replace with the spare wheel.
7. Jack down the car.
8. Replace all tools and the problem wheel.

Obviously, if you presented all this in a single segment, you would violate at least two of the principles of learning: whole versus part learning and meaningful material (in that trainees would have little chance to master early skill steps, with the consequence that later skills steps may become meaningless). Therefore, present each of the sub-objectives using the four-step segment:

1. Show
2. Show and tell
3. Check of understanding
4. Practice

However, to give the trainees some concept of the total task and to show the standard of performance expected by the end of the session, demonstrate the total skill immediately after the introduction and before commencing the learning of the sub-tasks. You would structure the plan for presenting the skill of changing a flat tire on a car in this way:

Demonstrate total task to standard:

1. Set out the tools.
   - Show
   - Show and Tell
   - Check of understanding
   - Practice

2. Take out the spare tire.
   - Show
   - Show and Tell
   - Check of understanding
   - Practice

3. Ensure the car is safe to jack up.
   - Show
     - Show and Tell
     - Check of understanding
     - Practice

And so on, until you reach the final sub-objective, "Replace all tools."

Time Schedule

Time schedules are very important to maximize learning. In the skill session, allocate time as follows:

- 5% of the total time to the Introduction
- 40% to the Show, Show/Tell, and Check Understanding
- 40% to Practice
- 10% to the Evaluation
- 5% to the Conclusion

The Skill Instructional Model is depicted on the next page.
## Skills Instructional Model

<table>
<thead>
<tr>
<th>Intro</th>
<th><strong>Anticipatory Set:</strong> You orient, Motivate, Measure current knowledge, State performance objective. Engage the student's prior knowledge and past experiences, state the objective, make sure they all understand it, Explain why they should learn the skill.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demonstrate the whole task</strong></td>
<td>Show the whole task at the speed they will be required to perform it at the end of the lesson. Explain that this is what they will be able to do at the end of the lesson. DO NOT explain how to do the skill.</td>
</tr>
<tr>
<td><strong>Show step</strong></td>
<td>Show how to do the first step.</td>
</tr>
<tr>
<td><strong>Show/Tell</strong></td>
<td>This is where you show and explain how to do the first step. Emphasize technique and safety.</td>
</tr>
<tr>
<td><strong>Check Understanding</strong></td>
<td>Check students, ask questions, &quot;eye ball&quot; students to see if you have their attention, &quot;read&quot; their body language.</td>
</tr>
<tr>
<td><strong>Practice step</strong></td>
<td>Have students practice the step. Supervise and provide feedback. Spend time with slow learners. Be positive. Approximately 50% of instructional time should be allocated to practice.</td>
</tr>
<tr>
<td>***</td>
<td>Intermediate steps of Show, Show/Tell, Check Understanding, Practice for subsequent steps of the skill.</td>
</tr>
<tr>
<td><strong>Show step</strong></td>
<td>Last step of Show</td>
</tr>
<tr>
<td><strong>Show/Tell</strong></td>
<td>Last step of Show/Tell</td>
</tr>
<tr>
<td><strong>Check Understanding</strong></td>
<td>Last step of Checking Understanding</td>
</tr>
<tr>
<td><strong>Practice step</strong></td>
<td>Last step of Practice</td>
</tr>
<tr>
<td><strong>Practice Total Task</strong></td>
<td>Have students put all the steps together and do practice doing the whole skill. Supervise and provide feedback. Spend time with slow learners. Be positive.</td>
</tr>
<tr>
<td><strong>Evaluate Learning</strong></td>
<td>When students are ready, have the students perform the whole task to performance objective standard. Observe -- do not assist. If they are unable to perform the skill to standard, reteach the weak steps, and retest the whole skill to standard.</td>
</tr>
<tr>
<td><strong>Conclusion</strong></td>
<td>Review the key points, answer questions, ask questions, stress safety considerations, link to next training session.</td>
</tr>
</tbody>
</table>

### Teaching Simple Skills

When teaching a simpler skill, which has no significant sub-tasks, you may need to go through only one segment of Show, Show/Tell, Check for Understanding, and Practice.
Lesson Plans
Lesson Plan

Title: The Lesson Plan

PO: Given a topic and reference material on lesson plan formats, prepare a lesson plan. As a minimum, the lesson plan must include the following:

- Title
- Performance or training objective
- Content outline for the lesson
- Activities and tips for teaching the lesson
- Evaluation activity
- References for the lesson content

<table>
<thead>
<tr>
<th>Content</th>
<th>Activities and Tips</th>
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</thead>
<tbody>
<tr>
<td><strong>Introduction:</strong></td>
<td>Pretest – Pass out the Pretest and have students complete it</td>
</tr>
<tr>
<td>State the PO</td>
<td></td>
</tr>
<tr>
<td>Check for understanding</td>
<td></td>
</tr>
<tr>
<td>Explain WHY?</td>
<td></td>
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<tr>
<td>Check for prior knowledge or skill</td>
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</tbody>
</table>

**EXPLANATION**

2. Parts of Lesson Plan.

- Title
- Performance Objective (3 parts)
- Content (topics and subtopics to be covered)
  - Activities and Tips (what the student and instructor will do to achieve PO)
- Evaluation (check learning)
- References (where to go for more information)

3. Time Frames. Point out that some people like to divide the presentation into time frames.

- Usually 5-60 minute notations.
- Helps make sure the lesson is completed within the assigned time.

**Summary:** Use AV-1 to review the parts of the lesson plan. Ask students:

1. Why use a Lesson Plan?
2. What are the required parts?
3. Why use time notations?

**Evaluation:** Have the students write a lesson plan to performance objective standard.

**Conclusion:** Explain that the next lesson will cover the development of lesson plans for lab activities. Answer any final questions.
| **Training Aids and Other Assistance:** | Overhead projector and screens, Handout #1, Lesson Plan |
| **Notes:** | |
Lesson Plan

No: 2
Title: Information Presentation

PO: Given a date, assignment sheet, a choice of subject, and a checklist, present a fifteen-minute class using the information presentation process. The presentation must be on a subject that is appropriate for the Information Presentation model, not exceed 20 minutes in length, and the student must score at least 70 on the checklist.

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</thead>
<tbody>
<tr>
<td><strong>Introduction:</strong></td>
<td>Pass out Pretest and have students take it.</td>
</tr>
<tr>
<td>State the PO</td>
<td></td>
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<tr>
<td>Check for understanding</td>
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<tr>
<td>Explain WHY?</td>
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<td>Check for prior knowledge or skill</td>
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</table>

**Body**

a. Purpose of the Information Session model
   - To present information (facts, knowledge or principles)
   - It stresses ideas and not skills
   - Sometimes use the Information Session with a Skill Session when the trainee needs to know facts, information, or principles about something before being able to do it.

b. Elements of the model.

   **The Introduction** - Used to:
   - Gain interest
   - Check Current Knowledge
   - Orient
   - Preview the Session
   - Motivate

   **The Body** - This is where you transfer the bulk of the information. Use a 3-step segment:

   1. **Explanation** - tell or allow trainees to discover new facts

   2. **Activities** - learn by doing. It:
      * Indicates to trainee how much he has retained.
      * Show the instructor how successful the E step was.
      * Separates one E step from the next and stresses continuity.

   3. **Summary** - Bring the pieces together and tie up the loose ends.

Pass out HO #1, Theory Session.
The Tell students they will have to conduct an information presentation. Secondly, it is a very good method managers can use to present information to their workers.

Explain the Elements of the Lesson Plan
Show AV-1, Information Session Model

Point out the parts of the Body

Demonstrate the Information Session. Teach a theory-based class.
<table>
<thead>
<tr>
<th><strong>Content</strong></th>
<th><strong>Activities and Tips</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4. The Conclusion</strong> - Five parts:</td>
<td>Practice: Have students plan and present a Information-based class.</td>
</tr>
<tr>
<td>* Review and recapitulate</td>
<td></td>
</tr>
<tr>
<td>* Test (written or oral)</td>
<td></td>
</tr>
<tr>
<td>* Link</td>
<td></td>
</tr>
<tr>
<td>* Clarify</td>
<td></td>
</tr>
<tr>
<td>* Finish - Let trainees know it is over.</td>
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</table>

**Summary:** Summarize -- Use AV-1 and answer any questions.

**Evaluation:** Have students present information lesson plan to PO standard.

**Conclusion:**
- Review the steps.
- Link to skill session
- Questions concerning the linkage?
- Clarify
- Finish

**References:**

**Training Aids and Other Assistance:**
- Overhead projector.
- HO#1, Information Session

**Notes:**
Lesson Plan Format
# Lesson Plan

**Title:** Bake a Cake

**PO:** Given a box of Betty Crocker cake mix, eggs, water, mixing bowl and spoons, measuring cup, baking pans, toothpick, and a fully equipped kitchen, bake a cake, according to the instructions on the back of the cake mix box.

## Content

<table>
<thead>
<tr>
<th>Introduction:</th>
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<tbody>
<tr>
<td>State the PO&lt;br&gt;Check for understanding&lt;br&gt;Explain WHY?&lt;br&gt;Check for prior knowledge or skill</td>
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<table>
<thead>
<tr>
<th>Activities and Tips</th>
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<tbody>
<tr>
<td>Show AV-1, Performance Objective</td>
</tr>
<tr>
<td>Pretest</td>
</tr>
</tbody>
</table>

## Body

- Gather the ingredients.
- Gather the utensils and mixing bowls.
- Preheat the oven to 350 degree F.
- Butter and flour the baking pans.
- Pour cake mix into a large mixing bowl and add 2 cups of water.
- Add three eggs one at a time beating well each addition.
- Mix with electric mixer for 2 minutes.
- Pour batter into baking pans.
- Bake for 25-30 minutes
- Test doneness at 25 minutes with a toothpick
- Cool in pan for 10 minutes
- Remove from pan and finish cooling on racks

## Evaluation:

Have trainees back a cake to PO standard.

## Conclusion:

Review steps. Briefly go over the main items -- stress care working with hot pans.
Tell trainees that the next lesson will be on decorating cakes.
Ask for questions.

## References:

Betty Crocker Yellow Pudding Cake Mix (back of box)

## Training Aids and Other Assistance:

Cake mix, baking pans, eggs, toothpick, water, equipped kitchen, mixing bowl, measuring cups, spoons

## Notes:
Lesson Plan

Title: Conflict Resolution

PO: Given a case study, resolve conflict. Must score at least 70 points of the possible 100 on an evaluation checklist.

Related SOL: FCS8223.015, Identify conflict resolution alternatives.
FCS8225.015, Identify conflict resolution alternatives.
FCS8223.016, Resolve conflict
FCS8225.016, Resolve conflict

<table>
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</table>
| **Introduction:** State the PO  
  Check for understanding  
  Explain WHY?  
  Check for prior knowledge or skill | Write PO on Board.  
  Pretest  
  Explain the following:  
  What conflict is  
  Role of Power  
  Destructive conflict  
  Constructive conflict |
| **Content:**  
  Five stages of conflict resolution:  
  • Awareness  
  • Arguing  
  • Negotiation  
  • Compromise  
  • Resolution | Activity 1:  
  Put students in small groups and have each group come up with two examples of situations and factors that caused conflict. (Use Activity Sheet 1 to guide them.)  
  Have students report their findings to the whole group. Discuss personal qualities that they see in others that aggravate them. Develop ways that they can become tolerant of these qualities.  
  Summarize their findings stressing what conflict is and why it is important to resolve it.  
  Explain the five stages of conflict resolution. Write them on the chalkboard as each is introduced.  
  Activity 2:  
  Pass out Case Study 1 and have each group determine the cause and solution to the conflict.  
  Have groups report their solutions.  
  Summary: Activity 2 |
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| **Activity 3:** Have each group do one of the following:  
  • Design poster  
  • Bulletin board  
  • Prepare a public service announcement  
  • Newspaper article  

  Each project must include information about how to resolve conflict and include a slogan.  
  May use computers to do Powerpoint presentations and graphic programs to design posters.  

  **Summary:** Activity 3 |

| Evaluation: |
| Pass out a case study. Students must resolve the conflict and score at least 70 points of the possible 100. |

| Conclusion: |
| Review the steps of conflict resolution and why it is important for students to use the skill in their lives. |

| References: |
| Families Today, Chapter ____. |

| Training Aids and Other Assistance: |
| Case study, bulletin board paper, poster board, magic markers, computers with Powerpoint and graphic programs. |

| Notes: |
| This lesson plan needs the case study for the assignment and the test. It also needs the Activity Sheet 1.  
  Finally, you need the Evaluation Checklist for the 100 point evaluation. |
## Lesson Plan

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