Training Design Resources
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Some things we know about learning:

- We learn through all our senses, but we take in more information visually than any other way.
- Presenting information using more than one sensory modality strengthens learning and retention.
- Two weeks after we are exposed to new information, we tend to remember...
  - 20% of what we hear
  - 30% of what we see
  - 50% of what we hear and see
  - 70% of what we say
  - 90% of what we say and do

  Edgar Dale, "Audio-Visual Methods of Teaching" Holt, Rinehart and Winston

- We can take in and remember 7 + or - 2 bits of information at one time. To enhance memory of a larger number of items, “chunk” items together into groups.
- Repetition increases retention.

How does the “Name Game” put these principles into practice?

How could you modify this game for one of your trainings?
Learner-Centered Instruction Is...

...An overall strategy that places the learner at the center of all decision making about instruction.

It begins with an understanding of the personal, professional and cultural contexts from which the learner comes.

It is characterized by the use of clear, measurable goals and outcomes and the direct involvement of learners in activities that produce deeper knowledge of content through the development of skills that are readily transferable to life and work.

This approach strives to be individualistic, flexible, competency-based, varied in methodology and not always constrained by time or place.

(Adapted from the Arizona Faculties Council Definition of Learner-Centered Education and the Faculty Development Institute, Virginia Tech)
Traditional vs. Learner-Centered

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Learner-Centered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trainees = Blank Slates</strong>&lt;br&gt;Assumes that learners know nothing about the topic, have no relevant experience, and are just empty vessels to be filled by the instructor.</td>
<td><strong>Trainees = Resources</strong>&lt;br&gt;Trainees bring a wealth of experience and ability to the learning situation. New learning builds on what is known, tying personal experience to content.</td>
</tr>
<tr>
<td><strong>Homogeneous Group</strong>&lt;br&gt;Most training groups are fundamentally the same, since they are assumed to all be blank slates.</td>
<td><strong>Unique Individuals</strong>&lt;br&gt;Each trainee is unique, differing not only in skills and abilities but also in learning style.</td>
</tr>
<tr>
<td><strong>Success = Content Covered</strong>&lt;br&gt;Equates success with the amount of material that is transmitted into receptive trainees within fixed time limits.</td>
<td><strong>Success = Skills Developed</strong>&lt;br&gt;Focuses on the development of job-based skills, utilizing the time needed to ensure mastery.</td>
</tr>
<tr>
<td><strong>Trainer Control</strong>&lt;br&gt;Important that the trainer always be visibly in control of the training process so as to fulfill trainee expectations of the supervisor/subordinate relationship.</td>
<td><strong>Trainees Self-directed</strong>&lt;br&gt;Trainees are seen and treated as self-directed, held responsible for their own learning and in control of their own behavior</td>
</tr>
<tr>
<td><strong>Retention by Rote</strong>&lt;br&gt;Assumed use of training content on the job but little practice built into classroom.</td>
<td><strong>Transfer by Design</strong>&lt;br&gt;Coaching and practice activities are designed into the learning process.</td>
</tr>
<tr>
<td><strong>External Motivation</strong>&lt;br&gt;Trainer approval, grades, supervisor requirement, legal mandates are seen as motivation.</td>
<td><strong>Internal Motivation</strong>&lt;br&gt;Recognition of need to learn new skills, improve performance and develop as a person provides energy.</td>
</tr>
<tr>
<td><strong>Trainer = Lecturer</strong>&lt;br&gt;Trainer is responsible for telling everything known about the topic to the trainees to make sure they &quot;get&quot; the information.</td>
<td><strong>Trainer = Facilitator</strong>&lt;br&gt;Trainer uses facilitation, communication and group process interpersonal skills to elicit information from trainees.</td>
</tr>
</tbody>
</table>
Internally Motivated
Adult learners need a reason to learn, a “need to know,” a “what’s in it for me.” Adult learners are self-motivated and self-directed if they have a clear sense of the purpose for learning the specific material you have to teach. They are usually not motivated to learn “for the sake of learning,” “because I said so” or “everybody needs to know this.”

Independent Self - Concept
Adult learners see themselves as capable of taking care of their own needs in the classroom, as they do in the workplace or in their personal lives. They are not as comfortable being placed in a passive role. They may go so far as to avoid classroom situations if they feel they will be treated “like children,” i.e., as they were in the traditional classrooms of their school experience.

Task - Oriented
Adult learners are not engaged by material that is abstract or too hypothetical. Since they need a reason to learn, a payoff, they want to learn by applying the information provided to real life situations as quickly as possible. They expect their class time to be well spent and hope their classes will help them solve problems in their daily lives.

Widely Diverse
Adult learners have accumulated a wealth of life and work experience that they call on as a point of reference for new learning. They carry reservoirs of personal experiences, which can be learning resources for the entire group. Active forms of learning help connect the content to the learners’ own meaning structures. They do not react positively to being treated as blank slates. The fact that the experience of the adult learners in any given classroom will vary greatly creates a wide range of individual differences that must also be taken into account.
“ADDIE”

A = Assess/Analyze
- Task Analysis
- Problem Identification
- Needs Assessment

D = Design
- Write Objectives
- Develop Tests
- Plan Instruction
- Select Strategies

D = Develop
- Script Lesson Plan
- Create Participant Materials
- Develop Training Aids
- Determine Delivery Strategy

I = Implement
- Train Instructors
- Deliver Pilot Course

E = Evaluate
- Test for Results
- Interview, Survey, Observe
- Revise
We have a preference for how we like to perceive that varies on a continuum from concrete experience to abstract conceptualization.

**Concrete Experience**
- Connected Knowing
- Sensing – Feeling

**Abstract Conceptualization**
- Separate Knowing
- Thinking

*Concrete experience* is connected to life experiences, while *abstraction* is a more objective way of knowing. When we approach learning abstractly, we think and read and grasp the information through concepts and ideas and theories.

All of us have a preference for perceiving in a way that falls somewhere on this line between experience and abstraction.
Processing
- Making the information ours -
- How we work with learning -

Processing is how we **work with the new knowledge**, how we **make the information our own**. This preference falls on a **continuum between active experimentation and reflective observation**, as shown on the next page.

Some of us like to act on new information immediately, to try it out, to do something with it and see how it turns out.

At the other end of the continuum, some of us like to stand back, watch and think about the new knowledge before trying it out. Again, mark the spot where you feel your preferences lie for Processing.

---

**Active Experimentation**
- Doing
- Jumping right in

**Reflective Observation**
- Watching
- Sitting back
The Learning Cycle

When you combine our various preferences for these modes of learning by placing one continuum over the other, you get the four learning style preferences we have been looking at and the key question for each style.

Concrete Experience
Sensing – Feeling

Type 4
What if?
Type 1
Why?

Active Experimentation
Doing

Type 3
How?
Type 2
What?

Reflective Observation
Watching

Abstract Conceptualization
Thinking

**Type 1 learners:** Perceive through concrete experience and process through reflective observation. They check out their ideas and feelings through interaction with others. They want to know, “**WHY** do I need to learn this?”

**Type Two learners:** Perceive through abstraction and process reflectively. They devise theories by integrating observations with what is already known. They want to answer the question “**WHAT** do I need to learn?”

**Type Three learners:** Perceive abstractly and then processing through active experimentation. They use their thinking to develop concepts that they can try out for themselves. They want to know “**HOW** does this work?”

**Type Four learners:** Perceive through concrete experience and process by active experimentation. They rely on an often accurate intuition as a primary focus for understanding. They want to check the information in light of their own experience. They need to answer the question “**WHAT IF?**”
Another Look at the Learning Cycle

**Experiencing**
Using experiences participants have already had or creating an experience for learning.

**Applying**
Testing new behaviors or modifying old ones and practicing them in everyday situations.

**Processing**
Discussing the experiences participants have had or sharing reactions to the activity provided.

**Generalizing**
Finding general trends/truths and forming reactions into conclusions, concepts and theories.
Type One Learners as Instructors

- Encourage self-awareness, authenticity and individual growth in their students
- See knowledge as valuable for growth in personal insight
- Like discussions, group work and realistic feedback about feelings
- Are caring people who engage their students in cooperative efforts
- Exercise authority with trust and participation
- Work toward organizational solidarity
- Appreciate students who are supportive and share their sense of mission

Ones may need to:
- Focus more on specific outcomes and procedures
- Spend more time on how to implement ideas and make them workable
- Spend more time planning
- Deal more readily with conflict
- Take action more decisively
Type Two Learners as Instructors

- Are interested in transmitting knowledge and in being as accurate and knowledgeable as possible
- See knowledge as valuable for deepening comprehension and further understanding of significant information
- Encourage outstanding students and seek to imbue a love of knowledge in their students
- Like facts and details and the systematic presentation of organized, sequential information
- Lead by principles and procedures and exercise authority assertively by using factual knowledge
- Work to enhance the prestige of their organization
- Appreciate students who are well organized, write things down carefully and follow through on assignments

Twos may need to:

- Take more risks
- Act before the plan is perfect
- Go more on instinct
- Try to inspire others
- Be more open to change
Type Three Learners as Instructors

- Are interested in developing productivity, competence and skills for economic independence
- See knowledge as valuable for enabling students to be capable of making their own way
- Like technical knowledge and hands-on activities, plans and time lines
- Lead by personal forcefulness and exercise authority by reward and punishment (the fewer the rules the better, but enforce rigorously the ones you have)
- Work hard to make their organization productive
- Appreciate students who are task-oriented and move quickly

Threes may need to:
- Take more time to chat with people about day-to-day issues
- Pay more attention to other people's needs and feelings
- Value ideas more for their own sake
- Take more time to consider all the ideas before coming to closure
- Take the time to let others find their own meaning/learning
Type Four Learners as Instructors

- Are interested in helping students to act on their own vision and enabling self-discovery
- See knowledge as a tool for improving society
- Encourage experiential learning, creativity and drawing new boundaries
- Like dramatic teachers who seek to energize their students
- Exercise authority by holding up a vision of what might be and thrive on crisis and challenge
- Work hard to make their organization innovative
- Appreciate students who can build on their ideas and are not dependent on the instructor for structure

Fours may need to:
- Focus more on structure
- Appreciate the need for follow-up and attention to detail
- Think more strategically
- Appreciate that others have lower tolerance for chaos
- Choose which risks to take
INSTRUCTIONAL SYSTEM DESIGN (ISD) COUPLED WITH THE LEARNING CYCLE
Hit the Target with Effective Performance Objectives

Performance Objectives Should Be:
- Clear
- Concise
- Measurable
- Realistic

Components of a Performance Objective

A performance objective describes the expected behavioral outcome of a training component. In order to be helpful, the objective must contain specific information that will let the learner know what is expected. A complete performance objective has four parts:

**Audience:** Who is receiving the training?

**Behavior:** What will they be able to do as a result of training?

**Condition:** What is the environment or criteria in which the work is to be performed?

**Degree:** How many times, how well, or how quickly will they have to perform?
A performance objective should not only have all four parts, it should also clearly describe what the participant will need to do with the knowledge or skill back on the job.

The following performance objectives have the four parts (Audience, Behavior, Condition, Degree). They are also clear, concise, and measurable. But look at each pair; which performance objective best depicts a behavior that would be more useful or realistic once the participant is back on the job?

**Example 1:**

- Using the information provided, learners will correctly list the stages in conducting an effective interview.
  
  OR

- In an interview, learners will ask questions that are legally defensible and that are likely to predict success on the job.

**Example 2:**

- Using information in your manual, learners will define the phrase “training needs assessment” as described in class.

  OR

- Following the guidelines presented in a training for trainers class, participants will write five questions to ask when assessing training needs.

**Example 3:**

- Using the guidelines, learners will list the steps to safely evacuate a building in the event of a fire.

  OR

- In a practice fire drill, learners will safely evacuate the building within five minutes of the alarm.
Domains of Learning

The three domains of learning separate behavior into distinct components for the purpose of analyzing how the behavior is learned.

**Cognitive (Knowledge)**
The cognitive domain, the one used most often in education and training, is concerned with thinking and learning about things in an objective, rational way. It focuses on learning that uses cognitive processes, memory and mental organization.

**Psycho-Motor (Skills)**
The psycho-motor domain looks at learning to do physical, motor tasks that rely on practice and repetition much more than the other domains. Psycho-motor tasks rely on body movement and “muscle memory” in conjunction with judgment, and must be practiced to the level of automatic response.

**Affective (Attitude)**
The affective domain concerns learning that is better described as valuing; feeling-oriented, subjective processes that are rarely observed except through changed behavior. Although it is usually not a focus of most training events, the affective component of a task may determine whether or not that task is actually performed by those who know how to perform it.
| Classification Levels of Three Domains of Learning |
|----------------------------------------|---------------------------------|------------------|
|                                      | Cognitive (Knowledge)            | Psychomotor (Skills) |
| Lower Level Learning                 | Remembering                      | Perception        |
|                                      | The recall of specific           | Becoming aware of  |
|                                      | items of information;            | the performance   |
|                                      | Recognition                      | of a behavior or  |
| Higher Level Learning                | Understanding                     | skill             |
|                                      | Able to discuss or define ideas  | Receiving         |
|                                      | Applying                         | Guided Response   |
|                                      | Take abstract information and    | Trial and error   |
|                                      | use it in concrete situations or | performance,      |
|                                      | new ways                         | guided by an      |
|                                      | Analyzing                        | Mechanism         |
|                                      | Breaking information down into   | Behavior or skill |
|                                      | components, seeing parts in      | performance that  |
|                                      | relationship to the whole        | is habitual,       |
|                                      | Evaluating                       | routine           |
|                                      | Judgment about the value,        | Organization      |
|                                      | competence, usefulness or worth  | Putting together  |
|                                      | of material, assessment,         | a consistent value |
|                                      | appraisal                        | system from       |
|                                      | Creating                         | conflicting ideas |
|                                      | Pulling together disparate       | Complex Response  |
|                                      | elements to form a coherent      | Mastery of a      |
|                                      | whole or new product             | complex behavior  |
|                                      |                                  | or skill by       |
|                                      |                                  | automatic         |
|                                      |                                  | performance       |
|                                      |                                  | Characterization  |
|                                      |                                  | Patterns of behavior|
|                                      |                                  | stable over time,  |
|                                      |                                  | consistent with   |
|                                      |                                  | values            |
## Bloom’s Taxonomy in Action

<table>
<thead>
<tr>
<th>Transfer of Learning</th>
<th>Level of Bloom’s</th>
<th>Description of Job Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highest</strong></td>
<td>Create</td>
<td>Can the trainee: Produce something original, such as an action plan or a set of procedures?</td>
</tr>
<tr>
<td>▲</td>
<td>Evaluate</td>
<td>Can the trainee: Give opinions about issues? Judge the validity of ideas or the merit of solutions to problems?</td>
</tr>
<tr>
<td>▲</td>
<td>Analyze</td>
<td>Can the trainee: Identify motives and causes, make inferences, and find examples to support generalizations?</td>
</tr>
<tr>
<td>▲</td>
<td>Apply</td>
<td>Can the trainee: Apply techniques and rules to solve problems? Apply concepts to new situations?</td>
</tr>
<tr>
<td>▲</td>
<td>Understand</td>
<td>Can the trainee: Organize what they have learned? Understand facts, interpret charts?</td>
</tr>
<tr>
<td>▲</td>
<td>Remember</td>
<td>Can the trainee: Remember what they have seen or read? Recite basic concepts?</td>
</tr>
</tbody>
</table>

Lowest
### List of Action Verbs by Level of Cognitive Taxonomy

#### Remember (Knowledge)
- Define
- Label
- Underline
- Identify
- Record
- Match
- List
- State
- Name
- Select
- Recall
- Repeat
- Outline

#### Understand (Comprehension)
- Conclude
- Express
- Restate
- Describe
- Locate
- Review
- Discuss
- Predict
- Tell
- Estimate
- Report
- Translate
- Explain
- Cite Examples
- Paraphrase

#### Apply
- Apply
- Interpret
- Sketch
- Employ
- Operate
- Use
- Illustrate
- Practice
- Modify
- Dramatize
- Relate
- Produce
- Demonstrate
- Schedule
- Show

#### Analyze
- Analyze
- Criticize
- Examine
- Relate
- Calculate
- Debate
- Inspect
- Solve
- Categorize
- Diagram
- Inventory
- Test
- Compare
- Distinguish
- Question
- Separate
- Contrast
- Differentiate
- Experiment
- Subdivide

#### Evaluate
- Appraise
- Estimate
- Revise
- Assess
- Evaluate
- Score
- Choose
- Judge
- Select
- Compare
- Measure
- Value
- Critique
- Rate

#### Create
- Arrange
- Compose
- Devise
- Improve
- Modify
- Assemble
- Construct
- Draw
- Invent
- Originate
- Adapt
- Create
- Expand Upon
- Magnify
- Plan
- Alter
- Design
- Generate
- Make-up
- Prepare
- Build
- Develop
- Imagine
- Manage
- Produce

To be measurable, behavior must be observable. Here are some verbs that are hard to observe or difficult to quantify or evaluate, even if observed.

- Understand
- Know
- Infer
- Attend
- Appraise
- Appreciate
- Generalize
- Compare
- Evaluate
- Discuss
- React
- Know
- Comprehend
- Express

Revised February 22, 2013
Based on Blooms-1956, Anderson & Krathwohl-2001 and Churches-2008
**Examples of Cognitive Taxonomy Objectives**

**Topic:** How Baseball Is Played

**Remember:**
In small groups, list the basic rules of the game of baseball.

**Understand:**
Explain the role of each of the players’ positions on the field.

**Apply:**
With a team, play a game of baseball according to the rules.

**Analyze:**
After watching a baseball game, compare the performance of the two teams based on the number of errors made by each.

**Evaluate:**
Umpire a game of baseball fairly according to the official rules of the game.

**Create:**
After watching a team play several games, assign each player to a position based on their skills and qualifications.
Examples of Cognitive Taxonomy Objectives

**Topic: Essential Components of ITIP**

**Remember:**
List the five essential components of ITIP as discussed in class.

**Understand:**
Explain the sequence of the essential components of ITIP in a lesson plan.

**Apply:**
In small groups, produce a lesson plan outline containing all the essential components of ITIP.

**Analyze:**
Given a lesson plan, determine which ITIP components are present and which are not.

**Evaluate:**
Given a lesson plan, rate the effectiveness of the learning strategies used in terms of the overall outcome desired.

**Create:**
Independently revise an existing lesson plan to include all the essential components of ITIP.
Bloom’s Taxonomy with Activities and Products


The development of instructional objective as a means to support purposeful development of instructional content benefitted a great deal from Benjamin Bloom, when in 1956 he published a taxonomy of intellectual behaviors. For the next 40 years, the application of his work found its way into many instructional disciplines. A key milestone came in 2000, when Anderson and Krathwohl (see citation) revised the taxonomy to make the model more appropriate to current audiences. In 2002 Barbara Clark, a researcher in educational practices of the gifted, adapted the revised taxonomy into roughly the circular graphic shown here. CDWS is still trying to contact Ms. Clark to obtain permission to add adjustments to the design, as represented in the included graphic.
Psycho-Motor Taxonomy

**Perception:**
Recognizes a set of actions
Watches a series of motions

**Set:**
Positions oneself for action
Modifies current situation to adapt to upcoming performance

**Guided Response:**
Imitates performance of skilled instructor
Acts out simulations or assigned roles

**Mechanism:**
Performs procedure to accepted standard
Demonstrates technique at standard speed

**Complex Response:**
Applies skills to new situations
Combines several skills to perform complicated operation
Examples from the Psycho-Motor Taxonomy

**Topic:** How to Park a Car

**Perception:**
After watching a driving instructor park a car, participant will describe the steps involved.

**Set:**
Driver will prepare to park a car by adjusting the car seat and mirrors as needed, fastening their seat belt, and starting the car.

**Guided Response:**
With instructor, drivers will park a car following step-by-step directions.

**Mechanism:**
Drivers will be able to independently park a car routinely within the lines of a parking space.

**Complex Response:**
Drivers are able to maneuver a car into a tight parallel parking space on the first attempt.
# List of Action Verbs by Level of Psychomotor Domain

## Perception
<table>
<thead>
<tr>
<th>Level</th>
<th>Action Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception</td>
<td>Recognize, Distinguish, Notice, Touch, Hear, Feel, See, Isolate, Select, Notice, Smell, Choose, Detect, Integrate, Describe, Differentiate, Relate, Select, Set, Arrange, Prepare, Get Set, Plan, Begin, Move, React, Respond, Start, Select, Display, Explain, Proceed, Show, State, Volunteer,</td>
</tr>
</tbody>
</table>

## Set
<table>
<thead>
<tr>
<th>Level</th>
<th>Action Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set</td>
<td>Arrange, Prepare, Get Set, Plan, Begin, Move, React, Respond, Start, Select, Display, Explain, Proceed, Show, State,</td>
</tr>
</tbody>
</table>

## Guided Response
<table>
<thead>
<tr>
<th>Level</th>
<th>Action Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided</td>
<td>Imitate, Copy, Follow, Try, Assemble, Build, Calibrate, Fix, Grind, Mend, Trace, React, Reproduce, Respond,</td>
</tr>
</tbody>
</table>

## Mechanism - Same as above, except with greater proficiency
<table>
<thead>
<tr>
<th>Level</th>
<th>Action Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanism</td>
<td>Make, Perform, Shape, Complete, Assemble, Calibrate, Construct, Dismantle, Display, Fasten, Fix, Grind, Heat, Manipulate, Measure, Mix, Mix, Organize, Sketch,</td>
</tr>
</tbody>
</table>

## Complex Response - Same as above, but more highly coordinated
<table>
<thead>
<tr>
<th>Level</th>
<th>Action Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complex</td>
<td>Coordinate, Fix, Demonstrate, Assemble, Build, Calibrates, Construct, Dismantle, Display, Fasten, Grind, Heat, Manipulate, Measure, Mend, Mix, Organize, Sketch,</td>
</tr>
</tbody>
</table>
Importance of the Affective Domain

Although most training objectives are written in the cognitive domain, to teach content areas that require changes in values and attitudes in order to impact job performance, the affective domain must be taken into account.

We don’t always focus our objectives on this area, but the affective dimension can make a huge difference in a learner’s willingness to actually perform tasks that he or she has the ability to do. If your trainees do not value a particular function, they will probably not use it, even if they have the skill to do so.

A good example is Universal Precautions. Almost everyone in correctional organizations has been taught the use of rubber gloves for personal protection in the work environment, but we still see staff everyday who do not use them. The skill of putting on gloves is relatively simple and easily learned, but without the belief system that gloves can save your life, they will not be used.

**What are some other examples of subject matter or content where the affective component determines whether or not skills taught in class will be put to use?**
### List of Action Verbs by Level of Affective Domain

#### Receiving
- **Ask**
- **Discuss**
- **Follow**
- **Choose**
- **Describe**
- **Sit**
- **Listen**
- **Concentrate**
- **Give**
- **Hold**
- **Erect**
- **Focus**
- **Hear**
- **Identify**
- **Read**
- **Locate**
- **Select**
- **Name**
- **Point To**
- **Attend**
- **Be Open To**
- **Do**
- **Rely**
- **Take Part**
- **Retain**
- **Feel**
- **Rely**

#### Responding
- **React**
- **Aid**
- **Contribute**
- **Greet**
- **Label**
- **Tell**
- **Respond**
- **Clarify**
- **Question**
- **Recite**
- **Practice**
- **Seek Clarification**
- **Interpret**
- **Help**
- **Present**
- **Write**
- **Cite**
- **Conform**
- **Report**
- **Use**
- **Answer**
- **Write**
- **Conform**
- **Discuss**
- **Select**
- **Become Animated or Excited**

#### Valuing
- **Argue**
- **Justify**
- **Join**
- **Explain**
- **Read**
- **Show concern**
- **Challenge**
- **Persuade**
- **Share**
- **Form**
- **Report**
- **Challenge**
- **Criticize**
- **Complete**
- **Initiate**
- **Select**
- **Refute**
- **Appreciate**
- **Demonstrate**
- **Invite**
- **Study**
- **Confront**
- **Follow**
- **Differentiate**
- **Propose**
- **Work**

#### Organization
- **Build**
- **Relate**
- **Compare**
- **Complete**
- **Modify**
- **Develop**
- **Prioritize**
- **Adhere**
- **Explain**
- **Order**
- **Formulate**
- **Reconcile**
- **Alter**
- **Generalize**
- **Organize**
- **Defend**
- **Contrast**
- **Arrange**
- **Identify**
- **Prepare**
- **Modify**
- **Arrange**
- **Combine**
- **Integrate**
- **Synthesize**

#### Characterization
- **Act**
- **Practice**
- **Listen**
- **Question**
- **Assess**
- **Delegate**
- **Modify**
- **Serve**
- **Display**
- **Revise**
- **Perform**
- **Verify**
- **Influence**
- **Maintain**
- **Propose**
- **Solve**
- **Discriminate**
- **Qualify**
The Rhythm of Training
Instructional Theory Into Practice (ITIP)

1. Anticipatory Set
   - Establish personal meaning

2. Instructional Input
   - Content/Info - Be Brief

3. Guided Practice
   - Hands-on activity w/support

4. Independent Practice
   - Application/activity with little support

5. Closure/Evaluation
   - Bring full circle & transition

### Why?

### What?

### How?

### What if?

### So What?
Stage 1: Anticipatory Set

The Anticipatory Set guides learners through the first quadrant of the learning cycle and addresses the following key points or issues:

► Sets the climate for active learning
► Answers the learner questions, “Why am I here?” and “What’s in this for me?”
► Begins to connect participants to the learning
► Begins to bridge from what participants already know to what they are about to learn
► Builds a “learning community”

Stage 2: Instructional Input

The Instructional Input guides learners through the second quadrant of the learning cycle and addresses the following key points or issues:

► Bridges from what participants already know to what they need to know or to be able to do that is new or different
► Answers the learner question, “What do I need to know?”
► Provides information from the “experts” (including the trainer and the participants)
► Builds knowledge and understanding
► Gives participants opportunities to question, discuss, react to, reflect on the information presented
► Actively engages the participants in their learning
Stage 3: Guided Practice

Guided practice guides the learners through the third quadrant of the learning cycle and addresses the following key questions or issues:
► Can participants actually use the new information or perform the skills?
► Answers the participant questions: “How do I use this in my job?” and “How can I make this work?”
► Provides participants the opportunity to practice with feedback and coaching from the trainer
► Gives participants the chance to make and learn from mistakes in a safe environment

Stage 4: Independent Practice

Independent practice guides the learners through the fourth quadrant of the learning cycle and addresses the following key questions or issues:
► Can participants actually use the new information or perform the new skills when they are on their own?
► Answers the participant questions
  ► “What if I do it differently?”
  ► “What if the situations in which I perform these skills or use this information are different from those in the classroom?”
► Provides participants the opportunity to perform the new learning without a safety net
► Guides the participant to transfer the learning from the classroom to the job

Stage 5: Closure and Evaluation

Closure occurs at the end of each module. This is a time when the trainer can review and revisit the key points of the module and lessons learned, then transition to the next module.

Evaluation actually occurs throughout the lesson, but is of particular importance before the trainer winds up one module and continues to the next.
Anticipatory Set

In the ITIP model, an "anticipatory set" begins the lesson plan. In this section, the instructor establishes readiness for learning and begins to ensure the transfer of new information and skills to on-the-job performance. Effective anticipatory sets serve the purpose of bringing the learner to the learning task. They are characterized by activities which focus the learner’s attention specifically on what is supposed to be learned and distance that attention from environmental or personal distraction. The trainer introduces the key conceptual focus of the lesson and explicitly states the performance objectives. Activities should reference previous knowledge or previous modules in order to "locate" the new learning and provide a frame of reference in which new information can be placed.

This connection with previous content, as well as life experience, provides a rationale for the learner to fully engage in the learning experience. An effective anticipatory set provides a meaningful context for training activities throughout the training. It can also help to ensure that from the first moment, the learner is involved in structuring the learning to be done and in devising the means to apply that learning.

At this stage of the lesson, trainers should eliminate activities which do not pertain directly to critical attributes of the learning task. Examples, jokes, icebreakers or stories which are interesting but unrelated should be avoided. Discussions or lectures which place the learners in passive roles should not be used at this point.

The anticipatory set should connect the learner's personal and professional experience with the new learning. It should answer the questions "Why?" "Why am I in this session?" "Why do I need to learn this?" Especially for adult learners, this part of the lesson serves to acknowledge and appreciate the wealth of experience they bring to the new learning situation.

Although input follows anticipatory set in the lesson plan and the lesson delivery, the determination of content for the input phase should come first in the trainer's planning process. Content determination will flow from the established outcomes and performance objectives originally established by the needs assessment process. It is almost impossible to design an effective anticipatory set without a clear understanding of the instructional input necessary to reach the stated performance objectives.

Trainers should make every attempt to ensure that participants go forward from the anticipatory set into the lesson without misunderstandings or misgivings, positively and accurately "anticipating" what is to come.

Adapted from : "Instructional Theory In Practice: Essential Elements of Instruction-Part One" by Lois Hay in The Journal of Correctional Training.
Instructional Input
A lesson plan developed according to the ITIP model will be based on performance objectives derived from a needs assessment process. Such a lesson would begin with an anticipatory set which prepares the learner by connecting prior knowledge and experience with the new learning. The next element of the lesson plan, known as the "instructional input," will be structured according to decisions the trainer makes on several key issues.

One of these key issues is the nature of the learners themselves. Individual preferences for learning style should be taken into account in designing input. Learners also differ in the perceptual modality they prefer. Most people use a combination of modalities, but show a preference and an enhanced use of one or two. Visual perception is preferred most highly, but there are also strong preferences for both auditory and kinesthetic modes. Since one cannot be sure of the exact preferences of any group, we should always present information in both the visual and auditory modes, as well as using the kinesthetic mode whenever possible.

Another key issue in determining input strategies is the nature of the learning task. The complexity of the information to be presented has implications for the delivery method that is chosen. Moving from the simple to the complex may be effective. It may also be necessary to "chunk" the information, so that it is presented in manageable bites rather than as an overwhelming whole.

The relationship of the input section of the lesson to the achievement of the overall performance objectives must be taken into account. For any level beyond simple information sharing and comprehension, the input must be structured taking into account the practice and skill building activities that will follow. The nature of the instructional input should model the kind of thinking and learning to be done.

The critical nature of particular ideas, facts or concepts and how they relate to each other determine the structure and order of the instructional input. Of all the available information related to any type of learning, what will be selected? What are the key points of the learning and what materials, examples and questions will focus learners on those points? What analogies, metaphors or visuals will illustrate essential concepts or skills? What contrasts or comparisons will help participants integrate information with knowledge they already have?

Another important strategy in this section of the lesson is checking for understanding. How will you know if the desired learning is taking place? How will you modify or adjust to redirect learning if comprehension is lacking?

Although the traditional mode of input is lecture or written material, the prior considerations may demand that these methods be supplemented or replaced with higher level strategies that draw information from the participants rather than simply presenting it to them.

Adapted from : "Instructional Theory In Practice: Essential Elements of Instruction-Part Two" by Lois Hay in The Journal of Correctional Training.
**Guided Practice**

ITIP lessons begin with an anticipatory set which is followed by instructional input strategies which are interactive, learner centered and deal with content at higher levels of thinking. These first two elements of lesson design will not have the desired impact without a chance for participants to practice under the guidance of an instructor. It is through such guided practice that information, concepts and skills are incorporated into performance. Research on learning and instruction tells us that without practice and feedback on performance, only two to five percent of participants will ever attempt new skills or behaviors upon returning to daily responsibilities.

We also know that practice/application of training content is often missing in agency curricula. Lecture, varied by question and answer sequences and discussion, continues to dominate training. The ITIP model asserts that without practice opportunities in each lesson, without some chance for learners to be guided through application of information and concepts, job performance will not change and instructional time spent in lecture will be largely wasted.

To avoid such waste and to take advantage of the potential impact of practice on improving job performance, training design should ensure that application of content, including the practice of skills and behavior sequences, is appropriately located in the lesson plan. All practice should focus on the desired learning, "how to's" rather than "how not to's". Practice situations should closely simulate job conditions and contexts. Learners should have sufficient, varied and correct models and examples to follow. Trial efforts by learners should be monitored by the instructor and learners should receive immediate, specific feedback that reinforces or corrects their performance.

Several opportunities should be provided to practice each skill so that refinement and improvement of performance can occur. Practice should go beyond simple repetition and include experimentation with alternatives, a chance to reflect on one's own performance and to get feedback from others involved in the same learning experience.

Skill development training which translates agency policy into operational procedures may already incorporate practice. New agency staff often receive classroom instruction with demonstration and practice time in the use of restraints, searches, defensive tactics, etc. Upon returning to the job they may be paired with an experienced officer who provides feedback and further demonstrates on–the–job application of skills. This model can also be used profitably in areas of training that have been considered "soft skills" or conceptual in nature. Programs on counseling, leadership, diversity, etc. can become more effective and have more impact if learners have the opportunity to apply the information; to try out behaviors and learn to evaluate and choose among options as situations change. To incorporate crucial guided practice, trainers need to allocate time for practice sessions within the lesson.

Adapted from: "Instructional Theory In Practice: Essential Elements of Instruction-Part Three" by Lois Hay in The Journal of Correctional Training.
Independent Practice
The ITIP lesson plan format uses an anticipatory set to prepare participants to learn, instructional input strategies appropriate to adult learners and guided practice which gives learners feedback on initial trials of new skills and behaviors. Independent practice, may or may not take place in the classroom. Independent practice occurs without the direct supervision and assistance of the instructor, although he or she may structure the assignment or individual learning activity. Independent practice can make the use of learned material more automatic through repetition. It can extend the amount of information learned beyond what is generally provided in the classroom as well as expand the learner's perception of how content can be applied in varied settings. Independent practice can cause new information to become an integrated part of an existing system of knowledge, abilities and interests. It personalizes the learning so that each trainee can use the new skill appropriately.

Adult training in a classroom rarely includes such independent practice. A fact of adult training is that most significant practice opportunities arise in the course of job performance while being evaluated against standards and where stakes are high. In spite of this fact, trainers can structure several types of independent practice into instruction and build bridges between the training environment and the workplace. In the classroom, the opportunity to relate the learning to the workplace can come through verbal reflection and reaction to simulations or case studies, applications of specific techniques to the work setting and through action planning to transfer classroom learning to the job. On the job, trainees can be supported in practice of new skills and behaviors through continued connection with the instructor, mentoring or coaching and periodic checks by supervisors to see if skills/behaviors learned are in place. Since, in the classroom, independent practice will be mostly cognitive and not directly observable, it should be structured so as to direct thinking to real world situations. It should be detailed enough to indicate that the learner has considered options and real world constraints. Discussion guides that focus group sharing on the use of training experiences in the workplace provide personalization. Learners may be asked to anticipate difficulties and strategize to overcome them, thereby strengthening thoughtful application. Written action plans to be used upon return to work are helpful in integrating new knowledge into existing expertise. In more ideal situations, class sessions can be interspersed with a variety of individual assignments ranging from readings/written reports to actual work experiences. These assignments are evaluated in subsequent classes and classroom activities can be designed to build on them or address deficiencies. This process may culminate in a project which demonstrates overall learning. Workplace mentors can be used to monitor application and assignments. Given the importance of independent practice in transfer of training to job performance, trainers should include it in planning whenever feasible.

Adapted from: "Instructional Theory In Practice: Essential Elements of Instruction-Part Four" by Lois Hay in The Journal of Correctional Training.
Closure and Evaluation

The terms "closure" and "evaluation" refer to any point in an instructional sequence where it is appropriate or necessary to summarize, emphasize, or personalize learning. In the ITIP lesson plan format, a section which concludes the lesson is also referred to in this manner. It formally serves those functions described above as well as being a final opportunity, within the classroom time frame, for the trainer to mediate the content and the learning process. Evaluation, in this context, refers to assessment of the knowledge or skill level of the learners, as well as the assessment of the training itself by participants. Effective evaluations serve as needs assessments for further training.

In designing the evaluation and closure portion of the lesson, active learner involvement continues to be critical to achieve the desired impact. Techniques which lead learners to summarize key points, review processes by which they learned and come to a perception of the degree to which they have mastered the materials are essential in this part of the lesson.

Closure and evaluation gives the trainer an opportunity for clarification of any question, misperception or miscommunication as well as the reiteration of key points. It also provides time for the trainer to make connections between this lesson, previous learning and learning activities yet to come.

While the instructor makes summary comments, it is also helpful at this stage to ask each participant to summarize the learning experience for themselves. It is effective at this point to draw attention to the learning objectives as stated in the beginning of the lesson and compare those outcomes with perceptions of the learners' level of accomplishment, from the perspective of both the learner and the instructor.

Evaluation and closure is the time in the lesson where formal testing should be done if such a process is required or necessary. Effective use of this element of the instructional process provides a solid basis for continuing development and growth on the part of trainees.

Adapted from: "Instructional Theory In Practice: Essential Elements of Instruction-Part Five" by Lois Hay in The Journal of Correctional Training.
Instructional Strategies is the term we use to describe those methods and activities trainers use to help participants reach the performance objectives.

The number of instructional strategies is limitless; however, there are a few that are most commonly used and that will usually help the trainer achieve the overall goal of the training. We will review the purpose and format of these methods, then work to see how each relates to the learning cycle, and the achievement of performance objectives.

They are:
- Lecture
- ORID
- Demonstration/JIT
- Role play
- Case study
- Jigsaw
Sequencing for a Lecture

Chronological:

**Example:** If presenting a body of knowledge such as the history of a particular organization or development of a system, you might use this sequencing:

- In 1900 this event occurred and this law was enacted.
- In 1925 this court was developed and it resulted in . . .
- No other landmark events occurred until 1955 when . . .
- The modern system began in 1969 with the case of . . .
- The latest development was . . . in 1990
- Under consideration now is the . . .

Simple to Complex:

**Example:** When designing a basic computer training program you might begin with the names of the components, the function of each, and how to turn the units on.

After participants practice using this information, you might "add on" and have them open a file and use some of the function keys. When they are comfortable with that, you might "add on" another skill. You would continue to add skills in this way until they can add all the steps together to open a file, create a document, then save and print the document.

General to Specific:

**Example:** In designing training for beginning supervisors, the program began with an introduction to supervision, leadership styles, responsibilities of a supervisor.

The program then began to focus on specific management skills.

Orderly Steps:

**Example:** When performing CPR it is important to follow specific steps in a particular order. First you check for consciousness, then you check for breathing, next you check the pulse, and so on.
Guidelines for an Effective Lecture

√ Engage the participants to make them active learners
  ► Provide questions for group discussion at various points in the lecture
  ► Provide a note-taking guide (questions, fill-in-the-blank, key points, areas for clarification)

√ Keep the lecture short

√ Use visual aids to illustrate and/or highlight key points
O - Objective

Getting to the Facts, Sensory Impressions, Information
What word or words jumped out at you?
What comments or phrases stuck in your mind?

R - Reflective

Personal reactions, Associations, Emotions, Images
What made you feel empowered, sad, or uncomfortable?
What reminded you of other cases or something you’ve experienced personally?

I - Interpretive

Meaning, Values, Significance, Purpose, and Implications
What is the importance of this? (Try to stay away from “Why”),
What new insight did you get from this?

D - Decisional

Resolution, Action, Future Direction, Next Steps
What will you do differently or more frequently because of this information?
How will this affect your daily performance?
## Sample ORID Questions

### Objective Questions

- What object do you see?  What did you see?
- What words stand out?
- What are some of the things we did today?
- Who were the characters?  Who was there?
- What are some events you recall in the past year?
- What were the characters’ names?
- What do you notice about this new form?
- Who was present at the meeting? Who spoke?
- What topics were discussed?
- What scenes do you remember?
- What sounds did you hear?
- What happened first?
- What caught your attention about ________?
- What are some teams you’ve been a part of?
- What headlines have caught your attention this week?
- What lines of dialogue do you recall?
- What do we already know about this subject?
- What was the sequence of events?
- What do you think of first when I say the word(s) ________?
- What were the key points in the speech?
- What behaviors or responses have you observed?
- What facts do we know about this situation?

### Reflective Questions

- What do you imagine was the reason for ________?
- What parts reminded you of your own ________?
- Where were you anxious?
- What made you feel appreciated?
- What seemed boring?
- What is on target?
- What seems certain?
- What is most exciting?
- Where are you really clear? Where confused?
- What would make you feel more comfortable?
- What concerns you?
- Where are you confident?  Where is more work needed?
- Where were people alienated?
- What gives you courage?
- What seems the most critical?
- What parts do you feel detached from?  Or feel they just aren’t important?
- What are you most doubtful about?
- What was inspiring?
- What color would you add?  Why?
- What was really easy? Most difficult?
- What music would you play?  Why?
- What was annoying?
### Interpretive Questions

- What assumption is being called into question?
- What is the importance of this?
- What new vantage point has this given us?
- What new insight did you get from reading this?
- What would you call or name this?
- What difference will it make?
- How does this affect our future?
- What would you say lies underneath these issues?
- How has this been beneficial to your personality?
- How will you apply what you have learned?
- What are our strengths? Weaknesses?
- What appears to be the central issue or key problem area?
- What other things do we need to consider?
- What is being recommended here?
- What kinds of decisions do we need to make as a group?
- What options are open to us?
- What questions did this raise for you?
- What insights are beginning to emerge?
- When have you experienced this?
- In a few words, what is this saying?
- Where do you see this taking place in other people?
- In what other situations has this occurred?
- Where has this occurred within yourself?
- What name would you give to it?
- How have other groups dealt with these issues?
- What kinds of changes will we need to make?
- What are the values we are holding here?

### Decisional Questions

- What are these themes really about?
- What will this mean?
- Describe what this means to you.
- Tell a story about this topic.
- Is this true?
- What would it look like for you to act in this way?
- What does it mean to have experienced this?
- What real difference will it make?
- So just what have we decided?
- What does this mean for our future?
- How will you title our final product?
- So, just what have you learned?
- How can you enable this to happen in your department?
- If we did this again, what would we change?
- How will you talk about this event to someone who was not here?
- What are we really committed to?
- What decisions do we need to make?
- What are the first steps we need to take?
- What is the resolve of this group?
- How would you articulate our consensus?
- What will you do differently?
- What is one specific challenge you will personally respond to?
- What name will you give to our time together?
- What applications or action ideas has this session triggered for you?
- What unfinished business do we need to begin with tomorrow?
Job Instruction Training (JIT)

**Step 1: Prepare Self and Participant**
- a) Give social reward for being interested or willing to meet with you
- b) Describe the appropriate behaviors or skill
- c) Ask questions around what person already knows or share positives that you have observed

**Step 2: You Tell, You Do**
- a) Instruct clearly and fully one point at a time
- b) Demonstrate slowly
- c) Stress key points

**Step 3: They Tell, You Do**
- a) Have person explain to you
- b) Ask questions, correct errors

**Step 4: They Tell, They Do**
- a) Put person on own
- b) Encourage Questions--Give additional instruction if necessary
- c) Give social rewards for effort and components done well
- d) Point out reasons why the skill is important
- e) Agree on reporting back procedures
- f) Taper off Checks---Let go!
Guidelines for Writing Effective Role Plays

1. Review performance objective(s)

2. Describe how the instructor will introduce the role play: purpose, setting, process

3. Explain the skills participants will be asked to practice or demonstrate

4. Write instructions: how each participant will practice the skills, how and by whom participants will be observed, how and by whom participants will receive feedback

5. Design processing questions instructor will use to check for understanding

6. Write an activity summary to include key points and transition
**Four Steps to Role Play**

**STEP 1-Orientation/Climate/Setting**
“Many of these 10 Interviewing skills will be used daily. Some of them may seem uncomfortable at first so we what to help you get a chance to practice before you have to use them in real interviews. We have 5 groups of three people. One person will be the Worker, One will be a Parent and the third person is an Observer. In your groups right now, take 1 minute and decide who will play each role. We will rotate roles so everyone will get a chance to practice before we finish our training. (After minute has passed)Raise your hand if you are the Worker. Raise your hand if you are the Parent. Raise your hand if you are the Observer. Great! This interview is not the first with this parent so don’t worry about introductions. This is your second visit and you are in their home to (state the purpose) i.e. see how the visit went, check on progress of task in Case Plan, etc.”

- OR -
“We will divide the group into 2 smaller groups. Once we get in our little groups, we will use about 2 minutes to get to know each other and decide how we will start.”

**STEP 2-Action (Set Controls-Start, Stop, Tag Team, Coaching)**
“When I say go, begin your role play which will only last 3 minutes. Observers you may help if the worker gets stuck. Stay in Role Play mode until I call “Stop”.

- OR -
“Brenda we will start with you. I’m handing you this $dollar bill. When you have finished practicing your skill, you will then “pass the buck” to Sally. Sally will practice and then ”pass the buck” and so forth. We will continue to role play for at least 3 minutes before stopping. After we stop, we will talk about our practice situation.”

**STEP 3-Feedback-Behavioral Not Personal**
“**Workers**-What do you feel you did well? What do you wish you had done differently?”
“**Parents**-What did the worker do that made you feel more comfortable about talking? What did the worker do that made you feel they were listening to what you had to say? What else did they do well? What do you wish they had done differently?”
“**Observers**-Please share the results from the feedback checklist.” (This is usually done in small groups but can be shared in large group depending on the relationships of the group.)

**STEP 4-Generalization-Ways groups can use new skill**
“It doesn’t matter if you will be an investigator, on-going worker or family support worker, you will find these skills help people feel heard and will help build rapport with families. Many will be used on a daily basis. Others you may not use as often or comfortably in the beginning and will take more practice.”
Example of Role Play

Purpose of the role play:
To have each participant practice the interviewing skills reviewed and demonstrated in class and receive feedback on their use of these skills.

The class is divided into groups of three. For each "round" one person will play the part of the supervisor, one will play the part of the applicant and one will observe the interview. After ten minutes, stop the role play and ask participants to give each other feedback using the guide sheets provided in their workbooks. When you begin the second "round," the roles will rotate. This procedure will be repeated three times, allowing each participant the opportunity to play each role.

INSTRUCTIONS TO THE PARTICIPANTS

ROUND 1: Decide who will play the part of the supervisor, the applicant and the observer. You will use the application that you have already reviewed and for which you have already written several questions. Follow the guidelines for interviewing that we've reviewed in class.

At the end of ten minutes, when I call time, the applicant and observer will give feedback to the supervisor using the feedback processing sheets in your workbook.
Example of Role Play Observation Feedback Form

Here is an example of feedback forms provided to participants in a structured role play on interviewing skills. The role play was designed to have participants practice the skills that had been presented, demonstrated and discussed in class.

Feedback Form - Applicant
1. Do you think the interviewer asked you any inappropriate questions? If so, what were they? If they asked these questions, how did you feel about answering them?
2. Did the interviewer allow for silence? If so, did this help you think of your response or did it make you uncomfortable?
3. Did this interviewer show any biases or prejudices in the interview? If so, how did this affect the interview?
4. What did this interviewer do to help you feel accepted personally? Do you feel that the interviewer was assessing your job skills fairly? Why do you think so/not?

EMPLOYMENT INTERVIEWING FEEDBACK FORM - Observer
Observe the interview role-play and comment on the following areas:
1. Did the interviewer ask any inappropriate questions? What were they? How were they inappropriate? How did this affect the interview?
2. Did the interviewer ask open-ended questions? What was one example?
3. Did the interviewer get specific behavioral examples of past performance? What was one example?
4. Did the interviewer allow for silence? If so, what happened? If not, describe one time when this might have helped the interview process.
5. Did the interviewer nonverbally show acceptance of the applicant? Give some examples of accepting or non-accepting nonverbal behavior.
A case study is an instructional strategy in which you provide a written account of a real or fictitious (but close to real) situation that individuals or groups will use to solve a problem, complete a form, or otherwise practice using the new knowledge and/or skills.

A case study can be used to:

► Help participants see that people often view the same situation from different perspectives
► Provide the realization that most situations do not have one right answer
► Actively involve participants in their learning
► Help participants synthesize and analyze concepts learned
► Evaluate the learning by having participants use new information to solve real-life situations

Case Study - sample situation

Mary’s Dilemma

Mary left the office at 8:00 a.m. to drive 30 miles to an agency secretarial planning meeting. When she got to the meeting site and no one else was there she realized that there was some mistake. She phoned one of the others who would be attending and was reminded that this week they were meeting on Thursday instead of their usual Wednesday meeting time. Mary returned to the office at 9:15 and handed her supervisor a leave slip for one hour and fifteen minutes. Her supervisor, Mr. Blow, said sternly, “You need to keep up with your calendar better than that. I’ll just have to write you up for poor organization and wasted time.” She received the official write-up that afternoon.
Guidelines for Designing a Case Study

Review the performance objective. Make sure the case study relates to this objective.

Write the situation with sufficient detail for the participants to analyze the situation.

Provide clear instructions for trainer to give participants (amount of time for responding to and discussing questions, method of recording, process for small group report-out).

Write relevant probing and processing questions to guide participants in analyzing the situation to apply the learning.

Write questions for the trainer to process and summarize the activity and check for understanding.
**Case Study Example**

**Tom and Janice**

Tom enjoys his role as office clown. One of the things he likes to do is to tell risqué stories to one of his male co-workers in a loud enough voice so that the females in the office can hear it. At the punch line, he and his friend laugh loudly while watching how the women react. Most of them pretend not to hear the stories; some are amused and react with coy smiles. Janice, on the other hand, is offended and feels degraded. However, she hasn't said anything to Tom.

Could this be perceived as sexual harassment? Why or why not?

Suppose Janice tells Tom that the stories upset her and make it difficult for her to do her work. Tom responds by laughing. The next time he tells his stories, he makes sure Janice is nearby to hear them.

What should Janice do now?

Suppose Janice's supervisor tells her not to be so prudish, that "boys will be boys" and she'll have to put up with Tom like everyone else does.

What can Janice do to assert her rights?

Should this supervisor have responded differently? If so, how?
**JIGSAW: An Advanced Instructional Strategy**

**Description:** Jigsaw is an instructional or learning strategy that is almost totally learner-centered. Participants study new information and then teach key concepts to each other.

**Designing a Jigsaw Learning Activity**

1. Choose learning material that can be broken into equal segments. A segment can be as short as a few sentences or as long as several pages. Here are some examples of material you might choose:
   - A multi-point handout (for example, "Four Styles of Learners")
   - Text with different sections
   - Several magazine articles that present "current best thinking" on the topic (be sure to get permission to copy)

2. Write clear instructions for the three distinct parts of the activity:
   A. **Study and prepare to teach:** each small group of participants will be given one segment of the learning. They will read the segment, discuss the key learning points, and develop a method or process to use to teach the key learning points to others. You will determine the number of “**study groups**” by the number of learning segments. Your instructions to the trainer need to include:
      - How the “study groups” will be determined. Will participants form a new group at this point or are they already in the number of groups needed for these learning segments?
      - Directions for participants (amount of time, clear statement of what they are expected to do study group and in the learning group)
      - A teaching preparation guide or outline, including amount of time they will have to teach

   B. **Teach the key points of the learning segments:** participants are instructed to form new small groups. Each of the “**learning groups**” will be made up of one person from each of the “study groups.” Your instructions to the trainer need to include:
      - How participants will form the learning groups. Each learning group will be made up of one person from each of the study groups.
      - **Example:** Learning segments can be color coded (blue, red, green, yellow) - each study group would be one color. Learning groups would then be formed with each group having one person from each color.

   C. **Debrief:** Instructor conducts a whole group debriefing by using questions to check for understanding. Your instructions to the trainer need to include asking all groups to assemble back into one whole group and the questions the trainer needs to ask to check for understanding.
**Jigsaw Activity Example**

**Step 1:** In your Study Groups, read the page on the component you have been assigned and work together to answer the following each person will need to take notes you can use to guide you when you teach:

- Component name:

- Purpose(s) this component serves:

- Key characteristics of this component:

- What learning activities can you use to make this component learner-centered?

- What are the consequences to the learning if this component is skipped?

**Step 2:** (10 minutes per person) In your **Learning Group**, present your component (in order) to the rest of the group, covering the five areas above. Check for understanding and answer questions to clarify.
Considerations for the Designer

- Consider your learners
- Make and review the charts ahead of time
- Determine the group assignments
- Determine mechanism for dividing groups
- What if you have a weird number of participants?
Four Levels of Evaluation
Kirkpatrick’s Model

Level I Evaluation: Reaction

Evaluation at this level measures the learner’s perception or reaction to the programs. Interest, attention and motivation of participants are critical to the success of any training program. People learn better when they react positively to the learning environment.

Although considered a “happiness rating” by many, participant reaction evaluations can be useful for a number of reasons:

► They can be a quick and inexpensive way to gather information.
► If the participants are not satisfied with the training, the likelihood is that it will be ignored in whole or in part. Conversely, if the training is perceived as worthwhile, there is at least a possibility it will be applied.
► They can be a guide to program improvement. Participant ideas for and concerns or questions about the training can be checked out with others.
► Participant reaction techniques can be designed for mid-course checks, enabling the trainer to make adjustments in the environment (comfort level), schedule (timing of breaks) and pace, when feasible.

This level does not measure actual learning of knowledge or skills, behavior change on the job, or actual outcome of the training.

Methods:
The most common method of reaction evaluation is the questionnaire completed at the end of the training. These range from rating certain aspects of the training on a continuum to open-ended questions. Other methods can include surveys, interviews, focus groups.

Techniques employed during the training can include individual or large group responses to questions at day’s end (what’s working, what’s not), comment cards, graffiti board (chart paper for participant comments), drawings.
Level II Evaluation: Learning

Measuring the learning that takes place in a training program is important in order to validate the learning objectives. This level of evaluation typically answers the following questions: What knowledge was acquired? What skills were developed or enhanced? What attitudes were changed?

Learning measurements can be implemented during the training using a variety of techniques. This can help the trainer know when there is a need to clarify, repeat, use a different method or provide additional coaching and support. In skill development the trainer needs to know when one step is mastered before another step is taught.

Learning measurements are administered at training’s end to determine if performance objectives have been met, to meet certain certification requirements, for legal documentation. To determine if the knowledge and skills have been acquired as a result of the training, pre-testing is necessary to establish a baseline.

Test questions that are consistently missed can indicate one or more of the following: poor test question; poor testing conditions; ineffective training technique or method; inadequate practice time; inappropriate level of training for participants.

Level II evaluation does not indicate whether the knowledge and skills will be used back on the job.

Methods:
Verbal questions and answers (whole group, small groups, or individually); paper and pen test questions; observation; performance demonstrations with check-lists; game-show quizzes; work samples; practice sessions.
Level III Evaluation: Behavior

This level of evaluation is designed to determine if a behavior change has occurred by answering the question “Do people use their newly acquired skills, attitudes or knowledge on the job?”

This type of measure will occur after the training when the participants have returned to the workplace, both soon after the training and several months later. These techniques will typically involve the learner him- or herself, the learner’s supervisor, and possibly others who interact with the learner as he or she uses the knowledge and skills to perform on the job.

Information gathered in Level III evaluation can be used to determine the following:

► Is the performance gap identified in the needs assessment being reduced or eliminated?
► Is the time allotted for the training adequate for the level of knowledge and skill required?
► Are the training techniques reality-based?
► Is there enough practice time and opportunity to enable transfer of learning to the job?
► Does the learner have the resources (equipment and support) to perform the learning on the job?
► Is coaching and feedback provided to the learner after returning to the job?
► Have we provided training at a level that will meet legal requirements for successful and safe job performance?

Methods:

Work sample review; interviews with learners, supervisors, co-workers, customers; focus groups; observation; questionnaires.
Level IV Evaluation: Results

In this level of evaluation the key questions are:

► What happens to the organization as a result of the training efforts?
► What is the return on investment (cost-benefit) of the training?
► How has the training helped resolve the problems identified as a result of the performance gap analysis?
► How has the training helped the organization accomplish its mission?

While it is often difficult to isolate the results of a training program, it is usually possible to link training contributions to organizational improvements. Collecting, organizing and analyzing Level IV information can be difficult, time-consuming, and more costly than the other three levels, but the results are often worthwhile.

Methods:

This level of evaluation cannot be accomplished with questionnaires and interviews, but rather necessitates collecting and analyzing hard data.

Examine the data collected prior to the training, during the needs assessment process. What were the indicators that the training was needed? What data was used to determine the training content, participants, schedule?

Examine the data after the training has occurred and the learners are employing the knowledge and skills back on the job. What improvements have been made? What indicators exist that the improvements are a result of the training?

Examine the data to determine the actual cost of the training: participant time and expenses (time, travel, accommodations), development time, instructor time, resources (training room, supplies, equipment, printing).
Questions and check-lists can be designed to check for understanding and skill mastery at any stage of the training. In some training programs, documentation of knowledge and skill proficiency is required by policy, certification requirements or legal ramifications. Whether you design test questions for a “check for understanding” during the course, or for documentation, there are guidelines to follow and challenges to address for these questions to provide the information you are seeking.

First and Foremost: Review the performance objective! Test questions need to be designed to check the knowledge and skills needed for the learner to achieve these objectives. Consider how the learner will have to use this information or these skills when they return to the workplace.

True/False
This type of question is best used during the training as a lively and fun way to review and check for understanding. In most cases, situations where learners are required to apply knowledge are not completely true or completely false. Remember that in any true/false test question the learner has a 50% chance of guessing the correct answer.

Multiple Choice
Write four PLAUSIBLE choices, all about the same length, to reduce the likelihood that the correct answer is the result of guessing. More than four choices is confusing. Avoid giving clues to the right answer in the responses; avoid “none of the above” and “all of the above” responses. Consider the level of the performance objective (knowledge, comprehension, application, synthesis, evaluation) and realistic choices the learner might face when applying the knowledge on the job.

Matching
Learners are asked to “match” items or statements in a column to the left with answers or responses in another column to the right. Question items should be limited to six or less. There should be 50% more options or responses than questions to reduce the likelihood of guessing. Use a central theme (include like items to avoid confusion and guessing), and make sure the instructions are clear. Again, it is important to consider how the learner will use this knowledge on the job.
Completion or Short Answer
Use only one blank per question to avoid confusion.
Omit only key words or phrases.
When designing a grading guide, consider the possibility that there is more than one correct answer.

Essay
Specify the information requested and write clear instructions. In the answer guide for the trainer or person grading, outline the main ideas you expect to be covered.

Performance or Skill Testing
Design performance testing that will be as realistic to the work setting as possible.
Include directions to ensure that the skills will be tested as they were taught.
Remind trainers in the instructions to make sure the learner has had ample supervised practice before being tested.
Include directions for any necessary safety precautions.
Design a check-sheet or guide for the “tester” to ensure more objective evaluation, to maintain consistency from one learner to another, and to provide documentation.

Open-Ended Questions
Design open-ended questions throughout the training to guide the trainer to check for understanding. This will provide a review of information, actively engage the learners, and let the trainer know when the participants are ready to move on to the next set of concepts.
The goal of this booklet is to guide curriculum developers to Design training programs that will:

► Teach current or state-of-the-art information and skills based on needs assessment data
► Employ learner-centered techniques
► Help participants reach realistic performance objectives
► Guide participants to transfer the learning from the learning setting to job performance
► Promote consistency from one training program to another
► Document knowledge and skills taught, teaching methods used, and evaluation of the learning
► Include a lesson plan that will serve as an instructional roadmap for trainers
What is ITIP?

ITIP is an acronym that stands for Instructional Theory Into Practice. It flows from the work of Dr. Madeline Hunter, who introduced the notion of educators, teachers and trainers using what we are learning about learning (research from neuro, behavioral and cognitive sciences) and modifying traditional education and training techniques/strategies accordingly.

Training designed according to the ITIP format simply means that, in its design and development, the training follows adult learning theory, is learner-centered, focuses on the needs and learning preferences of learners, and helps the learner reach the goal of training.

Designing and delivering training in the ITIP format will help you, as the trainer, answer:

► How can I help participants find meaning in what they are learning?
► How can I design a lesson that will produce new, transferable knowledge and skills that will enhance and increase job performance (transfer of learning)?
► What training strategies and techniques will likely appeal to the needs of my learners and also increase on-the-job transfer of learning?

What Is The Goal Of Training?

The ITIP format of training design is based upon the premise that the goal of training is to teach knowledge and skills to workers or employees to help them perform their jobs “successfully.” Ultimately, successful workers help organizations accomplish their missions.

Successful job performance is determined by occupational analyses, competency sets, laws (local, state, and federal) under which the organization operates, organizational policy, and management planning.
Much has been written about adults and the way we learn since Malcolm Knowles published his book, The Adult Learner: A Neglected Species, in 1975. Although there is a richness and complexity of information about how learning takes place, there are a few key principles to keep in mind when designing training for adult participants:

► Program design needs to take into account the entry-level knowledge and understanding of the participants.

► In order to accept, remember and use new information, adults need to be able to integrate it with what they already know, to place it on their own “reality map.”

► While most adults prefer learning that is active rather than passive, they also desire learning that stimulates thinking and has some degree of challenge.

► Frequent checks for understanding and opportunities for practice and feedback will address the need of adults to know what they are supposed to accomplish and how well they are doing in the learning situation.

► Adults differ from each other in experience, ability and background, and in preferred styles of learning. Accordingly, lessons need to be designed to accommodate these differences.

► Practice and transfer activities incorporated into the training design will help participants use what they learn when they return to the workplace.
So what is the learning process itself? Most current research describes it as a "natural cycle of learning," which is the combination of two processes, perceiving and processing.

According to David Kolb, and the additional research and theories of Kurt Lewin, Jean Piaget, John Dewey, Bernice McCarthy and many others, learning as we know and understand it is actually two processes that are combined. In essence, people learn by first perceiving something, then processing the information.

McCarthy uses the analogy of a clock to explain how learning happens in the cycle. In a new learning situation, the cycle begins with a person **Perceiving**, or taking in information. This is represented by a vertical continuum, that runs from 12 o’clock (Concrete Experience) to 6 o’clock (Abstract Conceptualization). (See the Learning Cycle graphic, page 7.)

Each person has a preferred, comfortable way of perceiving (taking in) information, which ranges from those who prefer to take in (perceive) through their own **Concrete Experience** (that is, by experiencing, relating to people, being sensitive to feelings and people) to those who prefer to take in (perceive) information through **Abstract Conceptualization** (by thinking, analyzing ideas and through facts, and data). Each way of taking in information (perceiving) is valuable - and each person has a preferred way of perceiving.

The second part of learning is **Processing**, or making sense of the new learning or new perceived experience or knowledge in our own world. Taking the clock analogy a step further, processing is represented by the horizontal continuum that runs from 9 o’clock (Active Experimentation) to 3 o’clock (Reflective Observation). (See the Learning Cycle graphic, page 6.)

Just as with perceiving, each person has a comfortable, preferred way of acting on, or processing, information to make it their own and have personal usefulness. This ranges form those who prefer to act on (process) through **Active Experimentation** (by jumping right in, tinkering, and actively doing something with the new knowledge or experience) to those who prefer to act on (process) the information by **Reflective Observation** (by thinking about it in relationship to what they already know and understand, observing and reflecting before acting on the new learning).

**In essence, Perceiving + Processing = Learning!**
More Information on Perceiving = Taking in Information

**Concrete Experience** - Learning by experiencing, relating to people, being sensitive to feelings and people; a very sensing, connected way of perceiving; takes in information through associations.

**Abstract Conceptualization** - Learning by thinking, logically analyzing ideas, planning systematically, acting on an intellectual understanding of a situation; a very separate way of knowing; perceives through abstractions; through facts, data, theories, concepts.

More Information on Processing = Acting on Information

**Active Experimentation** - Learning by doing, showing ability to get things done, taking risks, influencing people and events through action, trial and error; jumping right in, tinkering, acting quickly on new information; acting and then thinking.

**Reflective Observation** - Learning by reflecting, carefully observing before making judgments, viewing issues from different perspectives, looking for the meaning of things; reflecting on the new information before trying it out; thinking before (maybe) acting; requires time to process the new information in relation to what is already known.

**So What Does This Mean For Trainers?**

When we combine the two processes together, it yields a natural cycle of learning. Trainers can use this natural cycle as a way to design training that will appeal to and satisfy trainees various learning preferences.

While we know that people prefer to learn in a variety of ways, we as trainers can use a learner-centered lesson design format (ITIP) to address and accommodate learner needs and learning style preferences. We can best focus on the goal of training when learning is enhanced by designing training that follows the complete cycle.
The Natural Cycle of Learning

Concrete Experience
(12 o’clock)
Use to refer to experience participants have had; provide a new experience

Active Experimentation and Application
(9 o’clock)
With guidance and coaching, practice new behaviors, experiment, tinker.

Abstract Conceptualization
(6 o’clock)
Hear what the experts say; find general truths from the experiences; form conclusions, propose new theories

Reflective Observation
(3 o’clock)
Discuss the experience; reflect on the experience; thinking before acting on the new learning
Developing and Designing a Training Program
(“Into Practice”)

Step 1: Determine the TARGET AUDIENCE for the training: Who will be invited, required, allowed to attend?

The first step in designing an effective training program is to examine the data collected concerning the need for training. This data, collected using one or more of the following processes - occupational analyses, employee and management interviews, observation of job performance, examination of work products, mandates, organizational policies, and focus groups- is used to determine the target audience for the training, prerequisites, and performance objectives.

Examples: First line supervisors, immediately on promotion;
All probation agents, during first month after hire;
Managers or supervisors responsible for writing departmental policy;
Training professionals who have completed a basic training for trainers workshop.

Step 2: Determine the OUTCOME or goal for the training. What will happen as a result of the target group successfully completing the training?

The outcome statement, or goal, of the training is stated in broad terms and describes the problem to be solved as a result of the target population completing the training.

Examples: This training is designed to provide training professionals with the knowledge and skills they need to develop training programs that are legally defensible: based on needs assessed through a job and task analysis, detailed enough to provide consistency from one class to another, and that employ active learning strategies.
**Step 3:** Conduct a TASK ANALYSIS. What tasks would a person have to do in order to accomplish the outcome or goal, and what knowledge and skills would they need in order to perform each task?

The outcome or goal is too broad to teach or to measure, so it needs to be broken down into steps, or tasks. Each task needs to be analyzed to determine the knowledge and skills necessary.

The program designer, or curriculum design team, then needs to prioritize the knowledge and skills and determine which the participants would already know or be able to do, and which need to be taught in this training.

**Examples:** Tasks necessary to reach the outcome statement from Step 3 include: conduct a job and task analysis; write a scripted learner-centered lesson plan; develop evaluation tools.

**Knowledge and Skills** necessary to perform each task. What would anyone have to know or be able to do in order to perform the task?

Knowledge and skills necessary to perform the above tasks include: ability to conduct a job and task analysis; knowledge of the stages of a lesson plan; knowledge of the adult learning cycle; ability to design learner-centered instructional strategies; knowledge of the levels of evaluation; ability to write questions to process learning activities.

**Step 4:** Develop realistic and measurable PERFORMANCE OBJECTIVES.

A performance objective describes what a successful learner will be able to do at the completion of the learning experience.

In order to communicate clearly what the learner will be able to do, a performance objective must have three components:

1. **Statement of visible performance** - an action word that tells what the learner is expected to do. This does not describe the instructional strategy or the behavior of the instructor.

   The following words state visible performance: write, construct, compare, develop, complete, connect, prepare.
2. Condition - the important conditions (if any) under which the performance is to occur.

Is there equipment or material that the learner will be expected to use when performing (e.g., forms, tools, manuals)? Is there anything the learner will not be allowed to use? What are the real-work conditions under which the learner will be expected to perform (e.g., without a checklist, in the dark)?

3. Criterion - how well someone has to perform in order to be considered competent. Is there a time limit (e.g., within one minute) that is critical? Is accuracy critical?

Examples:
At the completion of this module, participants will be able to:
► Write a realistic and measurable performance objective that has all three components;
► Develop instructional strategies that will help participants reach the stated performance objectives;
► Write activity-processing questions that will guide participants through the learning cycle;
► Complete a departmental travel reimbursement form accurately and completely following the guidelines in policy #xyz;
► Conduct a room search following the ten guidelines presented in class. Participant must discover all contraband items placed by instructor.

Other points to consider when writing performance objectives:
► There is no “magic number” of performance objectives required or desired. The number will be determined by the number of skills needed to perform the tasks indicated by the needs assessment and the determined target audience.
► The amount of time required to train to a performance objective will vary depending on the level of skill of the target audience, the complexity of the tasks being taught, and the size of the class.
► Performance objectives must be realistic in terms of job performance. When training professionals attend a training program on training design, it is more likely that they will have to “develop or write complete performance objectives” when they return to the workplace than to “list the three components of a performance objective.”

After completing a class on sexual harassment, it is more likely that learners will need to be able to “observe a situation or read a case study and determine if it could be perceived as sexual harassment” rather than to “define sexual harassment.” When people are on the job we do not usually ask them to “list, define, or describe” - we ask them to perform.
Step 5: Develop a FIVE-STAGE LESSON PLAN (an ITIP lesson plan) that guides learners through the learning cycle.

FIRST STAGE: ANTICIPATORY SET

We start with a concrete experience for participants to set the stage; refer to an experience(s) participants have had or provide an experience; help connect people to people, and people to content, through movement, dialogue, conversation. Begin the practice of active, learner-centered learning right up front. Help participants feel comfortable in the learning environment and answer the questions “Why do I need to learn this?” and “What will I be expected to do?” through strategies such as questionnaires, demonstrations, participant interviews, topic-related icebreakers, expectation-sharing, experience-sharing.

Examples:

- In a class on sexual harassment, have participants work with one or two others to read a few short scenarios and select a “best response” from several listed. Scenarios need to be realistic and not obviously either sexual harassment or not. Guide instructor to have a few volunteers share responses, then use as lead-in to the critical need to be aware of both policy and law.

- In a class on Wellness, give the following instructions: ask each participant to list 10 tasks they have to accomplish each day, personal and professional. Give each person 10 balloons; ask them to blow them up and use a marker to write one task on each balloon. Have participants stand up and begin to toss their balloons in the air, trying to get all 10 “juggling” at once so none fall on the ground. After two or three minutes of activity, laughter, dropped balloons and so forth, have participants sit in pairs and discuss the following questions: How well did you “juggle” all 10 balloons/tasks? What happened when you tried? How is this similar to how you try to juggle your real life tasks? Then, connect to the part of the content that says wellness is a balancing act.
SECOND STAGE: INSTRUCTIONAL INPUT

Guide participants to connect new information with what they already know: they might be presented with new theories, laws, processes or skills, or they might be asked to look at current information or processes in a new way.

There are a number of considerations to make when designing the instructional input:

► The target audience and what they already know/know how to do
► The performance objectives
► The difficulty or complexity of the information or skills
► The criticality of the new learning to successful job performance
► The diverse learning styles of the participants
► The characteristics of adult learners
► The need of learners to “digest” information in “clumps” of five to seven “bits”

These issues will determine the complexity of the instructional strategies as well as the amount of time devoted to this stage.

“Covering” a lot of information in a short amount of time will not help participants succeed in applying the new skills on the job. Lecture is but one way to “input” or teach the content. In the lesson plan the trainer should be guided to conduct frequent “checks for understanding” by asking specific questions about the key points. Below are two situations where a trainer asks planned “Check for Understanding” questions. As you’ll see, they are open-ended questions, which learners must answer with more than a “yes” or “no” answer.

Some of the typical questions that trainers ask at the end of a piece of content instruction, such as “Are there any questions?” or “Does everyone understand?” are not questions that check for understanding. They are asking for a yes or no answer; “check for understanding” questions are just that - questions designed to let the trainer know where the participants are in terms of understanding the content.
Examples:

► In a class on sexual harassment for supervisors, one of the performance objectives is for participants to be able to follow departmental policy in responding to an employee’s complaint of sexual harassment. The trainer asks participants to read the policy, then demonstrates policy application in several work situations by using a skit. One trainer plays the part of the supervisor. A co-trainer, or a volunteer participant, plays the part of the employee making the complaint. The lesson plan includes a script or script guide for them to follow to ensure that critical points are made.

After each situation is demonstrated, the trainer asks participants to respond to several questions to help them make the connection. All questions, as well as expected responses, are written into the design.

Sample check for understanding questions include: “Did the supervisor follow policy when responding to this employee? Why do you think so? or What did s/he say that violated policy?”

This method helps participants connect policy to their actual job performance and engages them actively as learners.

► In a class on courtroom presentations for probation officers, one of the performance objectives provides for participants to be able to conduct a courtroom presentation that follows the court’s established professional code of standards. The trainer assumes the role of the probation officer and asks the class to assume the role of the judge. The trainer makes a less-than-professional presentation, then asks the “judges” what questions and concerns they would have.

Sample check for understanding questions include: “What questions do you have about the probation officer’s presentation? What were the strengths of the presentation? The challenges? How did the probation officer follow the code of standards? How did they fail to follow the standards?”

After presenting the court’s established professional code of standards, the trainer demonstrates these standards in another mock courtroom presentation. The participant “judges” will again ask questions and voice concerns, noting the difference between the two demonstrations.

This engages the learners actively in the learning and helps them see the difference between the two techniques.
THIRD STAGE: GUIDED PRACTICE

Participants practice the new concepts or skills with trainer guidance and feedback in a situation that closely simulates job conditions. This stage is essential in every program, for every performance objective.

If the training is based on needs assessment information to teach participants the knowledge and skills needed to perform critical tasks on the job, they must be given numerous opportunities to try out the new information and skills, practice all key attributes, get feedback and ask questions if they are to transfer the learning to their job performance. “Guided” practice is like practicing with a safety net and, at times, continues beyond the classroom to the work site with a job coach or mentor.

Examples:

► In the class on sexual harassment described earlier, participants work together in pairs or small groups to read several employee complaints of sexual harassment. They either write questions the supervisor should ask and responses the supervisor should make or demonstrate to others in class responses that comply with policy. The trainer will ask for feedback from other participants, then provide additional feedback as needed.

► In the class on courtroom presentations, each participant will use a case file to prepare and conduct a courtroom presentation in a small group. Feedback will be provided by other participants, as well as the trainer, on how well they followed the guidelines.
STAGE FOUR: INDEPENDENT PRACTICE

“Independent” practice is like taking away the safety net, for when participants return to work they will not have someone to remind them when they skip an important step in evacuating a building, searching a room, administering CPR, or to stop them in the middle of their courtroom presentation to tell them to “try again.”

Sometimes the independent practice can occur in the classroom environment, but more often it actually occurs back on the job site. One activity that can be written into the lesson plan to guide the independent practice and help participants transfer the learning from the classroom to the work place is Action Planning. Here are some key areas for an Action Plan to address:

► What they need to do (steps to take, tasks to accomplish) to use the new skills, techniques, behaviors when they return to work;
► What resources they need to make this happen;
► People they need to support them or give them feedback and how to get this support;
► Challenges they might face in taking these steps;
► How to address these challenges;
► Benefits they are likely to realize when they take these steps (master the skills);
► Establishing a time line for all the above.
STAGE FIVE: CLOSURE AND EVALUATION

The final stage of the lesson plan guides the trainer to check for understanding and to determine through observation, review and listening whether participants are comprehending information, making connections and making progress toward the training goal.

Examples:

► Use the formats from Jeopardy, Hollywood Squares or Who Wants to Be a Millionaire as a customized way to evaluate and close the learning. These game show activities are a lively and fun way for participants to review a module or entire day of training.

Write detailed instructions in the design for the game equipment or props, set up, and directions for the participants, along with all the correct answers.

► Trainer Challenge: Instruct the trainer to have each table group write four questions they want to ask the other group(s). They need to make note of the correct answers. Instruct trainer to have the tables swap index cards and respond to the questions from the other group.

► For psychomotor skills, develop a check-sheet for the trainer to use while observing participants in demonstration of the skills. Instruct the trainer to give feedback as needed.
Step 6: Design INSTRUCTIONAL STRATEGIES that engage participants actively, and help them reach or accomplish the desired performance objectives.

Instructional strategies are endless in number and variety. Instructional strategies are to performance objectives as vehicles are to destinations: one type won’t get you everywhere you need to go. When choosing and/or designing instructional strategies, there are a few key considerations to keep in mind:

- The performance objectives (how far do you need to go; how complicated is the skill)
- The learning space - amount of room; equipment available
- The diverse learning styles
- The amount of time needed and/or required

Instructional Strategies, or learning activities, need to simulate behaviors and thoughts that the job requires.

While lecture is perhaps the easiest instructional strategy to design and is likely the most common strategy to use, when used alone or in a lecture/discussion, it cannot guide participants around the learning cycle. The true advantage of a lecture is that it enables the instructor to “cover” a lot of information in a short amount of time.

Take a moment to reflect on what was written earlier in this document about “covering” information. This strategy does not engage participants, cannot be used for guided or independent practice, and does not give the trainer an opportunity to check for understanding and give feedback. As you design your training, “match” the training strategies you choose to the outcomes your performance objectives are targeting.

For example, if you want the learner to “safely evacuate the building within four minutes,” what strategies might you use? Would you lecture on the steps to evacuation? Probably. Would you demonstrate the steps to safe evacuation procedures? Definitely. Would you have participants practice evacuating the building in several possible scenarios? Absolutely! Would you have participants do an analysis of their own performance in the evacuation scenarios, and then practice again after the analysis? Positively! See the difference? By coming as close as possible to real life situations in training settings and by choosing a variety of instructional strategies that build on each other, the trainer makes it more likely that participants will apply the new knowledge, skills and behaviors in the workplace, and improve their job performance.
Training strategies include, but are not limited to, case study, role play, demonstrations, simulations, learning games, problem-solving activities, group discussions, group or individual projects.

To be useful, the instructional strategy and directions for its use must be written with sufficient detail for the trainer to be able to clearly understand the purpose and be able to provide instructions to the participants.

Example:

► In a class for supervisors on delegations skills, participants read and discuss steps for successful delegation. They are then instructed to read a “case study” that describes a supervisor’s dilemma. In the case study, the supervisor describes 10 tasks that if delegated to others in the work group, would free up a considerable amount of time each week. Each task is described, including the amount of time each day or week that must be devoted to it.

Another sheet describes the eight employees in the workgroup - their skills, goals, and work performance characteristics. The participants are asked to work in groups to determine which tasks the supervisor should delegate and to whom.

Here are the questions they are to discuss, first in small groups, then as a large group:

Small group questions:

1. Which of these responsibilities would you advise Joe to delegate?
2. To whom would he delegate each responsibility? Why?
3. What steps should he take to make this an effective delegation?
4. What benefits will likely occur as a result of the delegation - to Joe, to the employee to whom he delegated, to the staff, to the organization?

Large group questions:

1. What challenges do you think he might encounter in delegating these responsibilities?
2. How could he effectively manage these challenges?
3. Which, if any, of these responsibilities should Joe keep for himself? Why?
Step 7: Design Training Aids that clarify learning points, assist participants in remembering information presented and comply with copyright law.

“Training Aids” refers to any material or equipment the trainer will use to support the information s/he is presenting, to enhance the learning, to emphasize a point, to help participants remember.

The following are some basic guidelines for designing and using training aids such as videos, transparencies, computer-generated slide presentations, participant handouts or workbooks, special equipment or materials.

Videos

► If commercially produced, obtain copyright permission, regardless of who owns the video.
► Make sure the information, demonstrations, and key points are current and consistent with all guidelines, techniques, laws and policies presented in the lesson.
► Provide information in the lesson plan on how to obtain (purchase, borrow, rent) along with the cost to purchase, if that is recommended.
► Write questions for the trainer to ask prior to, and after, showing the video. Remember to include the desired responses to these questions.

Computer Generated Slide Presentations (such as Power Point and Corel Presentations) and Transparencies

► Copyright permission is necessary if any information in the slide show or on the transparency is downloaded from the Internet or obtained from other copyrighted sources. This includes syndicated cartoons in newspapers, magazines and books.
► Design slides that help participants connect with, focus on, or remember key points.
► Follow the 6x6 rule - no more than six words across and six lines down.
► Use consistent font and background for each slide.
► Use a large enough font - usually 28 points or higher - for participants to view text.
► Indicate in design exactly where each slide or transparency is presented.
► Give slides and transparencies numbers and titles that clearly indicate the location and order.
► Don’t overdo.
► Avoid or limit animations and sounds for slide show. If these are used at all, they need to be purposeful.
► Make transparencies of each slide for trainer to have as a backup in case of equipment failure (computer/LDC) or include a note to trainer to make transparencies.

Charts Stands and Newsprint
► Print in large, bold letters; don't speak while writing; use blue, black, dark green, purple or brown for main ideas, red for strong emphasis, lighter colors for highlights; tab pages (masking tape will do) for quick reference; roll and store in tubes; follow the 6 x 6 rule - no more than six words across and no more than six lines down.

Props or Equipment
► Clearly list all materials needed for props, along with where to locate or purchase the materials and the amount and size needed.
► Clearly describe all equipment needed (such as computers, handcuffs, contraband, etc.) and where to obtain (purchase, rent, borrow.)
► Indicate classroom size and setup to allow for use of equipment and materials.

Participant Handouts or Workbooks
► Get permission to use copyrighted materials.
► Make sure information is accurate and up to date.
► Number pages.
► Use no more than two typefaces per handout.
► Provide note-taking sheets and/or white space to enable participants to make their own notes.
► Use interactive formats such as partial slide/transparency text where participants complete the information.
► Don’t overload with information; design worksheets and instruction guides for activities.
Guidelines for Developing Training Designs

Performance Objectives
► Are they specific, observable, measurable?
► Are they at a level high enough to transfer to desired job performance?
► Are they based on needs assessment data?

Instructional Strategies
► Will they help participants reach the performance objectives?
► Will they actively involve participants in the learning?
► Are the instructions easy to follow?
► Does the lesson design include all necessary materials, including where to find them?
► Will the strategies reach all learning styles and complete the learning cycle?
► Is there a logical sequencing of strategies?
► Are there transitions from one objective to another?

Practice
► Is there sufficient opportunity for participants to practice using the knowledge and skills with guidance from the instructor?

Evaluation
► Does the lesson design include ways for the trainer to evaluate participant learning during the course?
► Are there strategies for the trainer to evaluate participants’ learning at the end of the course?
Learner-Centered Instruction/Instructional Systems Development


Zemke, Ron and Susan Zemke. Thirty Things We Know for Sure About Adult Learning, *TRAINING*, June, 1981.


Web Sites
- Arizona State University Faculty Site
  http://clte.asu.edu/teaching_strategies/learner_centered/learnercentered.html
- Notes of speech by Dr. Deb Ulmer
  http://vccslitonline.cc.va.us/mrcte/dr__deb_ulmer.htm
- American Psychological Association Principles of Learner-Centered Instruction

Needs Assessment


Web Sites
- Guidelines for Focus Groups
  http://www.mapnp.org/library/evaluatn/focusgrp.htm
- DACUM http://www.dacum.org/ and
  http://www.facilitation.eku.edu/dacum-occupational-analysis
Performance Objectives


**Web Sites**

- **Taxonomies**
  - [http://faculty.washington.edu/krumme/guides/bloom.html](http://faculty.washington.edu/krumme/guides/bloom.html)
  - [http://web.uct.ac.za/projects/cbe/mcqman/mcqappc.html](http://web.uct.ac.za/projects/cbe/mcqman/mcqappc.html)

**ITIP Model for Instructional Design**


**Web Site**

- Theory Into Practice Overview and links [http://tip.psychology.org/](http://tip.psychology.org/)
Designing Instructional Strategies


Web Sites
- PowerPoint Presentation on Instructional Strategies
  http://www.neiu.edu/~dbehrlic/hrd408/insructstrat/insstrat/
- Use of Lecture and Other Strategies
  http://www.gmu.edu/facstaff/part-time(strategy.html
- Teaching Handbook
  http://www.indiana.edu/~teaching/handbook_2.html
**Evaluation Strategies**


**Web Sites**

- Measures of Training Effectiveness [http://www.zigonperf.com/resources/pmnews/sullivan_meas_trng_eff.html](http://www.zigonperf.com/resources/pmnews/sullivan_meas_trng_eff.html)
General Web Sites for Trainers

Big Dog’s HRD Pages:
http://www.nwlink.com/~donclark/hrd.html

McGraw-Hill Links:
http://books.mcgraw-hill.com/training/elearning/resources.html

The Training and Development World:
http://thetrainingworld.com/

About Learning:
http://aboutlearning.com

Thiagi- Training Games and Activities:
http://thiagi.com/games.html

Presenter’s University:
http://www.presentersuniversity.com/

Microsoft PowerPoint Templates and Designs:

Discovery School Puzzlemaker:
http://puzzlemaker.discoveryeducation.com/

Trainer Bubble:

Web-Based Activities and Distance Learning:
http://www.eduscapes.com/distance/activities.htm

Speaking About Presenting:
http://www.speakingaboutpresenting.com/