Training, Teaching, Instructing: What Is It Really?
Andragogy (an·dra·go·gy)
The method and practice of teaching adult learners; adult education.

Pedagogy (ped·a·go·gy)
The method and practice of teaching, especially as an academic subject or theoretical concept.
Malcolm Shepherd Knowles (1913-1997)

Was an American adult educator, famous for the adoption of the theory of Andragogy—initially a term coined by the German teacher Alexander Kapp (1866). Knowles is credited with being a fundamental influence in the development of the Humanist Learning Theory and the use of learner constructed contracts or plans to guide learning experiences.

During his career he authored over 230 articles and 18 books, some of which include:

CHARACTERISTICS OF ADULT LEARNERS (ANDRAGOGY)

1. The Need to Know
   Adults want to know why they need to learn something before undertaking learning (Knowles et al., 2005).

2. Self-Concept
   As a person matures his/her self-concept moves from one of being a dependent personality toward one of being a self-directed human being. They need to be seen and treated as capable and self-directed.

3. Orientation to Learning
   Adults are life-centered (task-centered, problem-centered) in their orientation to learning (Knowles et al., 2005). They want to learn what will help them: perform tasks, deal with problems they confront in everyday situations, and how it applies to real-life (Knowles et al., 2005).

4. Readiness to Learn
   Adults become ready to learn things they need to know and do in order to cope effectively with real-life situations (Knowles et al., 2005).

5. Motivation to Learn
   Adults are responsive to some external motivators (e.g., better job, higher salaries), but the most potent motivators are internal (e.g., desire for increased job satisfaction, self-esteem).

6. Adult Learner Experience
   There are individual differences in background, learning style, motivation, needs, interests, and goals, creating a greater need for individualization of teaching and learning strategies (Brookfield, 1986; Silberman & Auerbach, 1998).

In 1980, Knowles made 4 assumptions about the characteristics of adult learners (andragogy) that are different from the assumptions about child learners (pedagogy). In 1984, Knowles added the 5th assumption.
CHARACTERISTICS OF ADULT LEARNERS (ANDRAGOGY)

The Need to Know
- Why
- What
- How

Self-Concept
- Autonomous (Independent)
- Self-directing

Adult Learner Experience
- Resource
- Mental models

Motivation to Learn
- Intrinsic Value
- Personal payoff

Orientation to Learning
- Problem Centered
- Contextual

Readiness to Learn
- Life related
- Developmental task

In Simpler Terms

Knowles’ 6 Assumptions Of Adult Learners

1. The Need to Know
2. Self-Concept
3. Adult Learner Experience
4. Orientation to Learning
5. Readiness to Learn
6. Motivation to Learn
Involved Adult Learners
Adults need to be involved in the planning and evaluation of their instruction.

Adult Learners’ Experience
Experience (including mistakes) provides the basis for the learning activities.

Problem-Centered
Adult learning is problem-centered rather than content-oriented. (Kearsley, 2010)

Relevance & Impact To Learners’ Lives
Adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life.

In 1984, Knowles suggested 4 principles that are applied to adult learning:
The ADDIE Instructional Design Model

The ADDIE Model provides such a process in five steps:

1. **Analysis**: Determine if training is appropriate, and define requirements for the training;
2. **Design**: Define objectives, build out the program and choose the methods and media;
3. **Development**: Conduct pilot courses using all materials in accordance with objectives;
4. **Implementation**: Implement ‘version 1’ of the training, evaluate it and refine it;
5. **Evaluation**: Perform evaluation at key milestones to ensure goals are being met.

Modern ideas about instructional design date back more than 50 years, with the ADDIE model appearing by the 1970s as a product of the **United States military**. By following the model, instructional design experts can take a data-driven approach that allows them to ensure systems are aligned with key goals. Plus, they have many opportunities to ‘course correct’ using periodic evaluation.
Styles of Learning: Visual, Auditory and Kinesthetic

1. **Visual:** These learners prefer to see the process demonstrated in a step-by-step way. They benefit from video demonstrations and from lectures that focus on watching an expert perform a task. They also tend to use traditional class notes more effectively than others.

2. **Auditory:** These learners are most effective when they listen to a process or concept being described. They benefit most from a traditional lecture. Participating by actively asking questions may help them learn better. They gain advantages from recording each lecture.

3. **Kinesthetic:** Kinesthetic learners learn best by performing tasks. This is true even if they have not quite mastered the concepts and need to use trial and error. They can use either of the other learning styles as a secondary tool, but will benefit the most from project-based learning.
Teaching and Learning Strategies

Lecture
• Lecture, a transmittal technique, is the method most widely used in teaching adults.
• Should be used in 15- to 20-minute sections spaced with active learning activities to reenergize participants for the next wave of information.
• Lectures can create/motivate interest in new topics, further research, or challenge ideas they have previously taken for granted.

Problem-Based Learning
• Problem-based learning is an instructional strategy that encourages critical thinking and problem-solving skills.
• The trainer is in the role of a facilitator to stimulate, guide, integrate, and summarize discussions.
• Strategies for problem solving with adults include games, simulations, and role play.

Case Studies
• Case studies are narratives, situations, data samplings, or statements that present unresolved and provocative issues, situations, or questions.
• Case studies challenge adults to analyze, critique, make judgments, speculate, express opinions and bring real-world problems into the training.
• They ensure active participation and can result in better retention, recall, and use of learning outside the training.
Teaching and Learning Strategies

Educational Games
- Educational games involve learners in competition or achievement in relationship to a goal.
- Many games are simulations with the goal of modeling real-life problems or crisis situations.
- Encourage participants to confront their own attitudes and values through involvement in making decisions, solving problems, and reacting to results of their decisions.

Role Play
- Role play is used to assist participants in experiencing feelings and practicing skills towards a specific situation that contains two or more different viewpoints or perspectives.
- Situations can be written as a prepared brief, and different perspectives or roles are handed out to different people who discuss the situation.
- The situations should be realistic and relevant.

Discussion
- Known as a pattern teaching method for active learning.
- Encourages students to discover solutions and develop critical thinking abilities.
- Allows learners to be active and experience personal feedback
- Superior to lectures in adult learners' information retention; transfer of knowledge to new situations; problem solving, thinking, or attitude change; and motivation for further learning.
Training is the process to prepare a learner to physically complete a task.
What is needed to prepare this learner to complete the task?
- Information
- Education
- Training
Information
We are buried beneath the weight of information, which is being confused with knowledge; quantity is being confused with abundance and wealth with happiness.

Tom Waits
Information

Information is the conveyance and/or representation by a particular arrangement or sequence of data or things/objects.
✓ Information

The information provided to the learner for the task has to be relevant, pertinent, understandable, retainable and logical. Comprehensive...
Education
Education

Education requires 3 steps

- Receiving the information
- Comprehending the information
- Applying the information
Education

Receiving the information

We must first decide if the information presented will be of value to our lives.
Education

Comprehending the information

Next we have to work on understanding the information.
Education

Applying the Information

Finally, we must be able to describe or show how the Information is used or can be used.
Training
Training

Teaching an individual a particular skill or behavior.
Training

Components of Training

- Education
- Demonstration
- Evaluation
Education

You must verify the learner is educated on the Task of the Job Function to be performed.
Education

Verify the learner:

Received all pertinent Information.
✔ Education

Verify the learner:

Can apply all pertinent Information.
Demonstration
Demonstration

Show the learner how each Task of the Job Function is to be performed.
Demonstration

Have the learner perform the Task of each Job Function exactly as shown.
Demonstration

Have the learner repeat the Task of each Job Function multiple times as shown.
Demonstration

The learner must move the behavior from the Conscious portion of the brain to the Subconscious portion of the brain.
Components of Training

- Education
- Demonstration

Evaluation
Evaluation

Assign the learner to work with and to be mentored/coached by an Expert.
☐ Evaluation

The learner must be required to perform each Task of the Job Function in the actual work environment.
✓ Evaluation

The learner must perform each Task of the Job Function under all expected conditions multiple times.
✓ Information
✓ Education
✓ Training
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*Note: * indicates optional training.
Subpart I – Personal Protective Equipment

1910.132 General requirements

(f) Training

(1) The employer shall provide training to each employee who is required by this section to use PPE. Each such employee shall be trained to know at least the following:

(i) **When** PPE is necessary;
(ii) **What** PPE is necessary;
(iii) **How to** properly don, doff, adjust and wear PPE;
(iv) **The limitations** of the PPE; and,
(v) The **proper care, maintenance, useful life, and disposal** of the PPE.
(2) Each affected employee **shall demonstrate an understanding** of the training specified in paragraph (f)(1) of this section, **and the ability to use** PPE properly, **before being allowed to perform work requiring** the use of PPE.
(3) When the employer has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by paragraph (f)(2) of this section, the employer shall retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:

(i) Changes in the workplace render previous training obsolete, or
(ii) Changes in the types of PPE to be used render previous training obsolete; or
(iii) Inadequacies in an affected employee’s knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.
Questions?