

# Instructional Training for the Public Health Professional

## The Adult Learner

# Instructional Training for the Public Health Professional

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## THE ADULT LEARNER

Module 2

This module provides instructor participants a definition of learning, a definition that lays the framework for much of the material in this manual. The module identifies characteristics of the adult learner and builds upon these characteristics to better understand adult learning theory.

## Module Objectives

### Module Objectives

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By the end of this module, participants will understand the meaning of learning and apply the characteristics of the adult learner to adult learning theory.

- Explain the definition of learning
- Recognize the differences between the adult learner and the child learner
- Identify the various processes and approaches used by the adult learner

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### Performance Objective

By the end of this module, participants will be able to explain the meaning of learning and apply the characteristics of the adult learner to adult learning theory.

### Enabling Learning Objectives

By the end of this module, the instructor shall accomplish the following learning objectives in support of the performance objective:

- Explain the definition of learning
- Recognize the differences between the adult learner and the child learner
- Identify the various processes and approaches used by the adult learner

## Learning

**Learning is:**

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a stable and persisting change in

- knowledge
- skills
- attitude

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In its simplest meaning, learning can be defined as the acquisition of knowledge. But this meaning falls well short of understanding the adult learner. Learning is defined by Klein (2004) as “a stable and persisting change in knowledge, skills and attitude”. Let’s break this down to the component parts:

**Breaking Down the Definition**

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<b>Stable</b>	<ul style="list-style-type: none"><li>• A steady and constant process where learners build on prior learning and create a scaffold that support future learning</li></ul>
<b>Persisting</b>	<ul style="list-style-type: none"><li>• a change that is not temporary</li><li>• an evolving process</li></ul>
<b>Change</b>	<ul style="list-style-type: none"><li>• the act making or becoming different</li></ul>

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**Stable.** In the context of learning, stable is applied to be steady and constant. It is an active process where learners build on prior knowledge and create a scaffold that supports future learning.

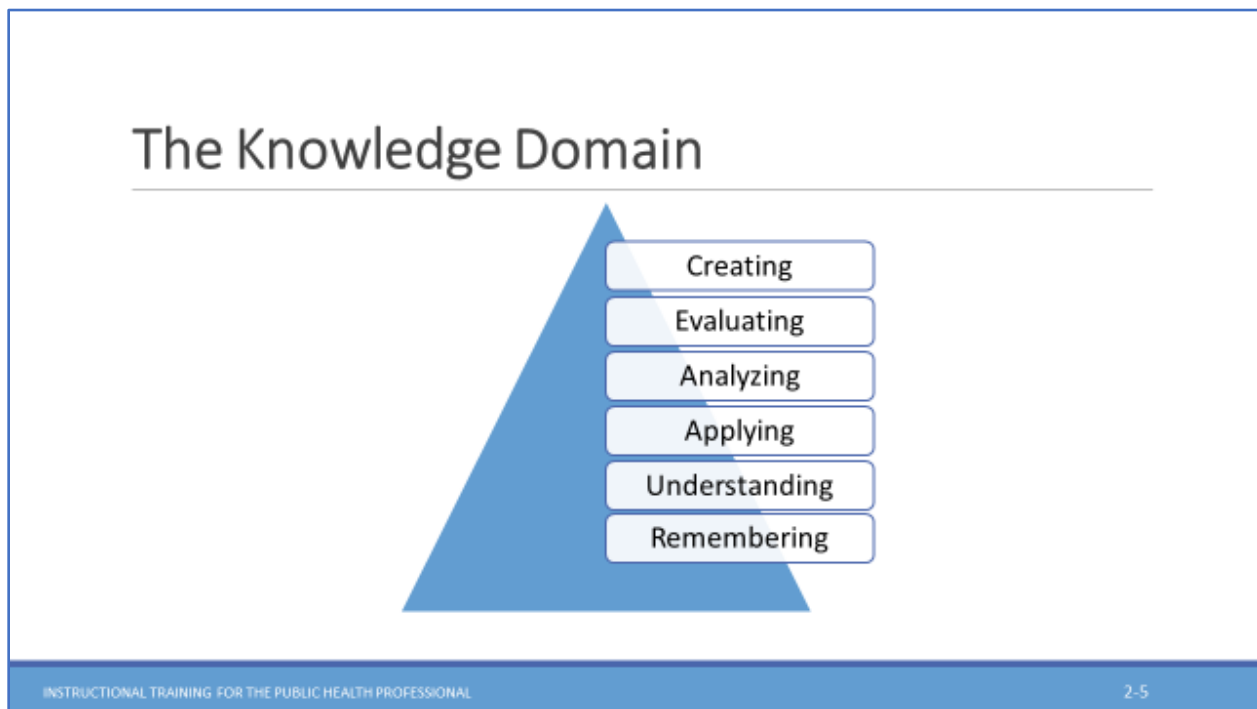
Persisting. For learning to be of value, it must persist over time. There must be a change that is not temporary – going back to the place you were. It must be noted that the term permanent was not used to describe the change. Change may continue to evolve.

Change. Change is the act making or becoming different.

Knowledge, Skills and Attitude. Through the work of Dr. Benjamin Bloom and a committee (1956), three domains or categories of educational activity (learning) were identified. The three domains include cognitive learning (mental skills or knowledge), psychomotor learning (manual or physical skills - skills) and affective learning (growth in feelings or emotional areas – attitude).

### **The Knowledge Domain**

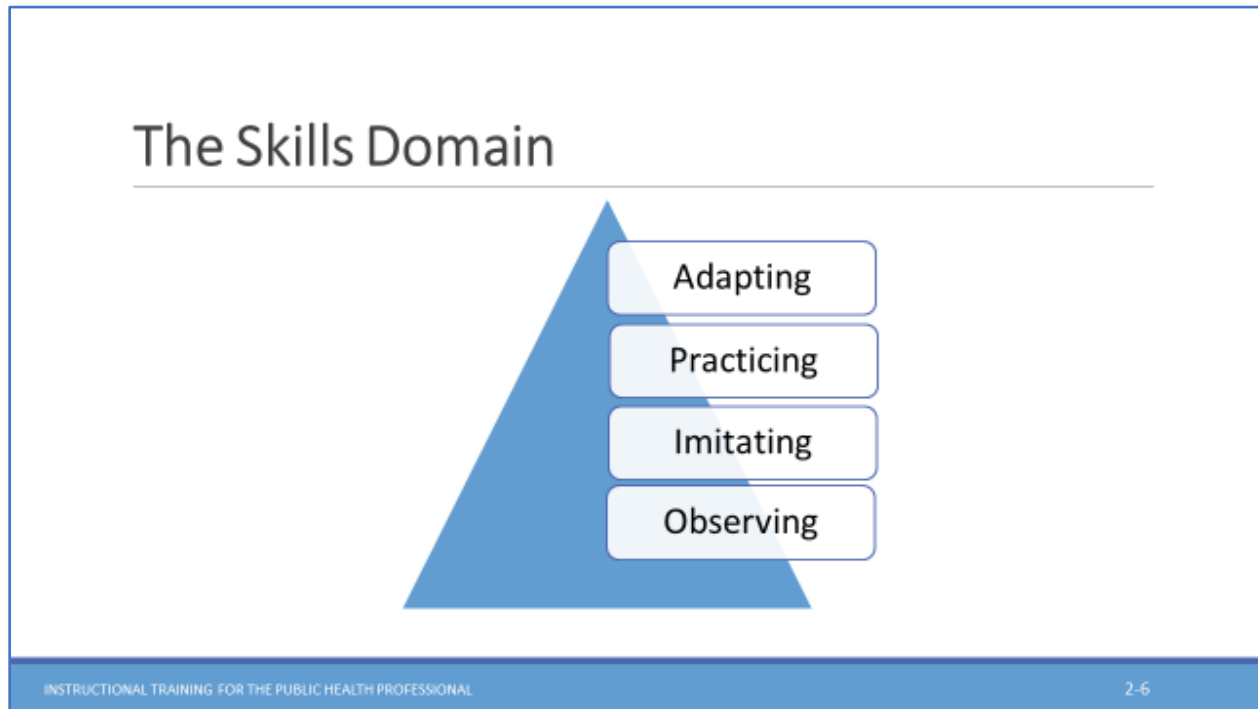
Knowledge describes the cognitive domain associated with the development of intellectual skills. There are six major levels or categories in the cognitive domain. The six domains depicted in Figure 1 below are considered Bloom’s Revised Taxonomy and is the work of Anderson and Krathwohl in 2000.



Remembering, what is often called the first rung of Bloom’s ladder to mastery learning, demonstrates the skill of recall – the facts. The second rung of the ladder is the skill of understanding – rephrasing and summarizing. The mid level of the taxonomy is the skills of applying and analyzing. The third rung in the ladder demonstrates the skill of applying – use the concept in a new situation. The fourth skill is analyzing – break down the concept to its component parts for higher comprehension. The highest two levels in Bloom’s taxonomy is evaluating and creating. The evaluating skill demonstrates the ability to make judgements about the concept – compare and critique may be operable concepts associated with this skill. The highest level in the taxonomy is the skill of creating – depicted by using the concept to create a new model.

## The Skills Domain

The second stable and persisting change we seek is to the concept of skill, oftentimes referred to as the psychomotor domain. This domain is associated with psychomotor learning and includes physical movement, coordination and motor-skill development. The psychomotor domain has at least three predominate models that have been developed. A simplified and combined taxonomy of Harrow (1972), Dave (1970) and Simpson ((1972) is provided below.



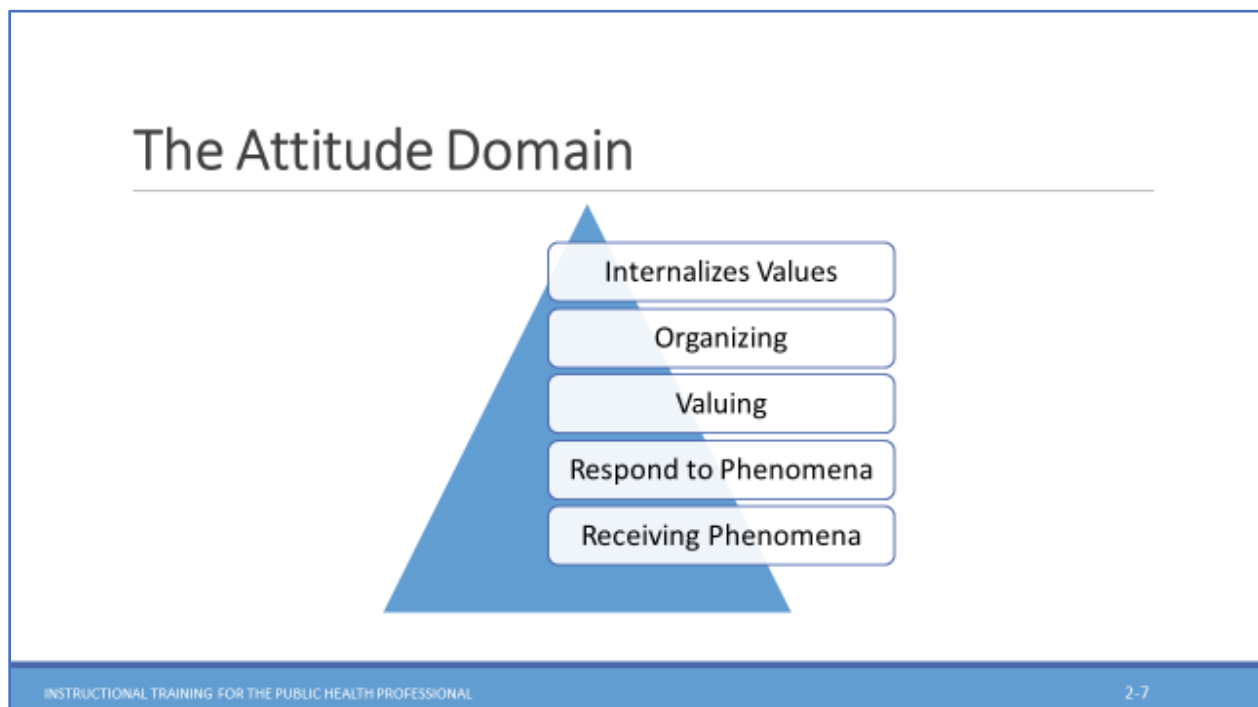
- Observing, the lowest rung on the ladder, is the act of watching the more experienced person perform a task.
- Imitating is the first step in learning a skill. The learner is observed and provided feedback on their performance. At this stage the movement is not automatic or smooth.
- Practicing is the act of trying a task over and over. The skill is repeated and a sequence of skills is performed repeatedly. Movements appear more automatic and smooth but an entire routine is not fluid.
- Adapting is the stage when minor adjustments are made in the activity to move towards perfection. At this stage, a coach may be necessary to provide improvement in the skill.

## Instructional Note

An example explaining this domain is dancing. In becoming an expert at dance, one first observes others, they may then take lessons or read to learn some of the actions, they would then practice a skill and then combine the skill into a series of actions to achieve harmony and consistency of action. The last step is to perform until it becomes second nature or natural. Only an expert will make changes to skills at this point.

### The Attitude Domain

The attitude domain, often referred to as the affective domain, includes the manner in which we deal with things emotionally. Concepts such as value, enthusiasm, and motivation are found in this domain. Following Bloom's Taxonomy, the affective domain was developed by Krathwohl, Bloom, and Masia (1973) and is depicted in Figure 2 below.



## Instructional Note

The instructor may want to use the following list to assist with understanding the attitude domain:

Receiving: The learner is willing to pay attention and listen with respect.

Responding: The learner actively responds and participates.

Valuing: The learner places value on a behavior, idea, person, institution, etc.

Organization: The learner prioritizes values and resolves conflicts between them.

Internalizing values: The learner's value system is internalized and controls his or her behavior.

The first level in the domain is receiving phenomena. It is the concept of awareness and willingness to hear. The second level is responding to phenomena and is demonstrated by active participation. A class discussion or questioning new ideas would be examples in this level. The third level in the taxonomy is valuing. Valuing is demonstrated by the expression of behaviors associated with a certain phenomenon or behavior. Organization is the fourth level in the affective domain. Organizing one's values into a set of priorities. An example of this would be the establishment of a work-life balance. The final level is internalizing values. This step is characterized by creating a value system that controls behavior. This is the most important characteristic of the learner. Mastery at this level allows the learner to work productively in group and adjust judgement based on new information.

### Adult Learning Theory

The adult learning theory comes from the work Malcom Knowles and many others on the theory of adult learning, or andragogy. This contrasts to pedagogy, the term describing the child learner. Andragogy, adult learning theory, can be considered more of a process model whereas pedagogy is more of a content model. There are six assumptions associated with the model:

- Self-concept.
- Experience.
- Readiness to Learn.
- Orientation to Learn.
- Motivation to Learn.
- Need to Know.

# Adult Learning Model



## Instructional Note

The instructor will use this slide to highlight adult learning characteristics from the six assumptions of the model. Mention to the participants that each assumption is explored in much more detail in the manual. From the top box, moving to the right:

- Self-concept. Adult learners are generally more self-directed as they believe they are responsible for the outcome of the lives.
- Level of experience. Adult learners use prior life experiences as a basis for learning and use prior experiences to learn new concepts.
- Readiness to learn. Adult learners are more driven to learn if the information being conveyed has value to them. Subject matter must have relevance.
- Learning orientation. Adult learners are more driven to learn if the information being conveyed has value to them.
- Motivation to learn. Adult learners' motivation to learn is internal, referred to as intrinsic motivation. They want to learn for personal satisfaction, enjoyment or interest in the subject matter.
- Need to know. Adult learners may need to know why certain subject matter has relevance to them without any preconceived reason to learn.



## Self-Concept

Children are dependent learners. As a dependent learner, they rely on others to provide them the information they learn. During the earliest stages of development, the dependent learner takes the information in a “one-way” format. A dependent learner would prefer a lecture environment with structure with externally-defined goals and reinforcement. As a person matures, they move from this dependent model to one being more self-directed.

Adult learners are generally more self-directed in their learning approach. Adult learners believe they are responsible for their lives. The adult learner wants to be in control over their learning. They have self-defined goals and may require reassurance from others that they are achieving their goals.

The self-directed adult learner:

- Takes initiative in learning
- Self-directed learning assumes that the natural orientation of adult learners is task or problem-centered.
- Expect the physical environment to be comfortable and adult-oriented
- Expect a psychological climate of mutual respect and trust in an atmosphere of collaboration.

## Level of Experience

The child learner is generally considered to lack experience and there is no reliance on the reinforcement of learning with “real life” examples. Since there is an assumption that the child learner is devoid of experience, they are told what they need to know. To the child learner, experience is something that happens to them.

The adult learner uses prior experience as a basis for learning and are capable of using prior experience to learn new concepts. Instruction to the adult learner should include discussion, and problem-solving activities. To the adult learner, experience is who they are.

The experienced adult learner:

- Their maturity in the learning phases is in-tune with the natural process of psychological development. That is, the learners’ experiences become an increasingly rich resource along a maturity continuum.
- May give meaning and authenticity to subject matter.
- May create an active learning process whereas the inexperienced learner will be passive as they have no experiences to draw from to inform learning.

## Readiness to Learn

The child learner is driven extrinsically to learn. They learn more to satisfy a rigid system, such as completing a curriculum and getting a grade, possibly to please someone else such as a teacher or parent. It is more about transferring a foundational knowledge and evaluation of what is learned.

The adult learner is more driven to learn if the information being conveyed has value to them. The adult learner does not want to spend time in a learning environment that is irrelevant to their own needs and desires. The adult learners’ readiness to learn may be characterized by the following:

- The social role” of the adult can be a major reason adults engage in learning. Examples of this may be a mother-to-be may be motivated to learn parenting skills whereas there may have been little desire to learn parenting skills prior to pregnancy.
- Curiosity or the enjoyment in learning new things
- Desire to overcome a problem
- Looking for connections between well-understood concepts and newly-recognized learning opportunities.
- Educators of adults must create a readiness to learn with techniques that are experiential in nature.

### Learning Orientation

An instructor-centered approach is generally the approach used with the child learner. There is very little input by the child learner and it is more about “pushing in” content to the learner with very little regard to drawing out from the learner.

The adult learner prefers instructional approaches that are learner-centered with a focus on problem solving. Learning methods are best when they incorporate exercises and role-playing. They prefer real-life situations and tend not to want deep discussions related to theory. Adult learners prefer flexibility and to be in control when approaching objectives set out for learning.

The learning preferences of the adult learner are characterized by the following:

- Drastic move from subject-centered learning to problem-centered learning
- Learning experience is enhanced with real-life situations.
- Desire immediate application of knowledge learned

### Motivation to Learn

The child learner is generally extrinsically motivated to learn. That is, they are motivated to perform in order to earn a reward or to avoid punishment.

As a person matures in relation to the learning process, motivation to learn is internal, referred to as intrinsic motivation. Intrinsic motivation is occurring when a person wants to do something such as for personal satisfaction, enjoyment or interest in the subject matter.

The adult learners’ motivation:

- Is internally motivated to learn.
- Learning leads to personal growth and fulfillment. “Fully-Functioning Adult”

### Need to Know

The child learner is not so concerned with the relevance of the subject matter to their daily lives but have a sense of wonder and exploration. The child learner is often powerless to change the subject matter and do not make any demands to know why they are learning the subject matter.

The adult learner may learn a subject matter due to its relevance to an immediate situation. More importantly, the adult may need to know why certain subject matter has relevance to them without any preconceived reason to learn. There are situations where learning is mandated or where the learning is

in preparation for some future application. This is an important concept with the adult learner and may pose a considerable challenge to the adult educator. From an instructional perspective, the question of “What’s in it for Me” should be considered when preparing for the adult learner.

The adult learner and their need to know:

- Necessitated by a reason for learning
- In the absence of an immediate need to know, the question “what’s in it for me” must be answered.

## Activity

<p><b>Activity</b></p> <p>Take five minutes to fill out the information requested. Space is provide in the manual.</p> <p><small>INSTRUCTIONAL TRAINING FOR THE PUBLIC HEALTH PROFESSIONAL</small></p>	<h3>Readiness to Learn</h3> <hr/> <p>Describe a time where learning was desired:</p> <ul style="list-style-type: none"><li>▪ To fulfill a social role</li><li>▪ For curiosity or enjoyment</li><li>▪ To overcome a problem</li></ul> <p><small>2-9</small></p>
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### Instructional Note

This activity will reinforce the “Readiness to Learn” assumption of the adult learner. Ask participants to review the section on “Readiness to Learn” above and fill in their responses in the spaces provided below. Participant time to fill in responses should take no more than five minutes. Call on willing participants for responses.

This activity will reinforce an important assumption of the adult learner – Readiness to Learn. Please review the section on readiness to learn above and fill in your responses in the space provided below.

*I exhibited a readiness to learn to fulfill the following social role:*

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*I exhibited a readiness to learn for curiosity or enjoyment:*

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*I exhibited a readiness to learn to overcome a problem:*

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Comparison of Adult and Child Learning:

The table below contrasts the adult and child learner using the six assumptions of Knowles and others.

### Adult and Child Learning Differences

	Children	Adults
Self-Concept	Dependent	Self-Directing
Level of Experience	Inexperienced	Experienced
Readiness to Learn	Related to human development phases	Related to changing roles
Learning Orientation	Subject-centered	Life/Problem/Task centered
Motivation to Learn	Extrinsic	Intrinsic
Need to Know	Exploration	Relevance

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## Learning Processes and Approaches

There is a vast multitude of research that can be accessed describing learning preference or learning style. A learning style is not to a personality trait. A learning style that is generally developed through an experiential process. Learning style has various elements that will help to understand its importance to instruction. One element of learning style to be considered is how information is process. How does the learner perceive, organize and store information? This may be referred to as sensory learning process. Another element to be considered is preference for instruction. Does the individual have a certain preference for learning in a certain way? This can be considered the learning approach.

### Sensory Learning Processes

The slide features a title 'Sensory Learning Processes' at the top. Below the title are three horizontal blue bars, each with an icon on the left and a label in the center. The first bar has an eye icon and the label 'Visual'. The second bar has an ear icon and the label 'Audio'. The third bar has a hand icon and the label 'Kinesthetic'. At the bottom of the slide, there is a footer with the text 'INSTRUCTIONAL TRAINING FOR THE PUBLIC HEALTH PROFESSIONAL' on the left and '2-11' on the right.

#### Instructional Note

The following slides will highlight each sensory learning process. Refer participants to the table in the manual for a more detailed approach to each process.

The sensory learning process is usually broken down into the sensory processes of visual, audio and kinesthetic or VAK. Most learners will have a predominate sensory learning process, but most learners will mix and match, oftentimes based on the instruction received. The importance of understanding these processes to the instructor rests with the understanding that how people learn is generally how they will instruct. Creating balance in delivery only occurs when instructors understand the characteristics of each of the sensory learning processes.

## The Visual Learning Process

### Visual Learning Process

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- Prefer directions to be written
- Participants with the greatest facial expressions and pick up on facial expressions of others
- Prefer visual aids such as charts and illustrations during instruction
- Provide highlighters and allow space for notetaking on materials provided

## The Audio Learning Process

### Audio Learning Process

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- Participants are good at remembering what they hear
- Participant may not read body language well
- Use questioning to draw out oral responses
- Prefer to have instructions read aloud
- Instructors should be aware of voice inflection and modify volume as a means of emphasis

## The Kinesthetic Learning Process

### Kinesthetic Learning Process

- Prefers hands-on activities to reinforce what is written or said
- May undertake tasks without reading or hearing directions
- Participants need frequent breaks and do not discourage standing during instructional periods
- Write out information during lecture
- Provide hands-on exercises to reinforce learning objectives

The following table will break down each of the three processes:

Sensory Learning Process	Visual	Audio	Kinesthetic
Characteristics of Learners	<ul style="list-style-type: none"> <li>*Prefer directions to be written.</li> <li>*May draw or doodle during lecture.</li> <li>*Tend to be the participants with the greatest facial expressions and pick up on facial expressions of others.</li> </ul>	<ul style="list-style-type: none"> <li>*Good at remembering what they hear.</li> <li>*May not be great note-takers.</li> <li>*Will retain information better if there is discussion.</li> <li>*May avoid reading aloud.</li> <li>*May seem stoic in the instruction environment and may not read body language well.</li> </ul>	<ul style="list-style-type: none"> <li>*Prefers hands-on activities to reinforce what is written or said.</li> <li>*May undertake tasks without reading or hearing directions.</li> <li>*May have difficulties remaining seated during lecture.</li> <li>*May be perceived as active or athletic.</li> </ul>
Strategies for Learners	<ul style="list-style-type: none"> <li>* Use visual aids such as charts and illustrations during instruction</li> </ul>	<ul style="list-style-type: none"> <li>*Review aloud.</li> <li>*intention of instruction</li> <li>*Use questioning to draw out oral responses.</li> </ul>	<ul style="list-style-type: none"> <li>* Instructors must move while they lecture or read.</li> <li>*Use exercises that use hands-on activities.</li> </ul>

	<ul style="list-style-type: none"> <li>* Instructors may need to get the attention of the learner.</li> <li>* List key point of instruction on easel pads, white boards, projected computer screens.</li> </ul>	<ul style="list-style-type: none"> <li>* Explain charts, graphs and illustrations aloud.</li> <li>* Paraphrase.</li> </ul>	<ul style="list-style-type: none"> <li>* Read aloud.</li> <li>* Take frequent breaks and do not discourage standing during instructional periods.</li> <li>* Write out information during lecture.</li> </ul>
Strategies for Instruction	<ul style="list-style-type: none"> <li>* Provide clear, concise written instruction</li> <li>* Slides and other illustrative material must be visually appealing using color as appropriate.</li> <li>* If possible, provide highlighters and allow space for notetaking on materials provided.</li> </ul>	<ul style="list-style-type: none"> <li>* Read instructions aloud.</li> <li>* Use recorded audio when possible.</li> <li>* Be aware of voice inflection and modify volume as a means of emphasis.</li> </ul>	<ul style="list-style-type: none"> <li>* Use demonstrations during instruction.</li> <li>* Provide hands-on exercises to reinforce learning objectives.</li> <li>* Encourage active participation.</li> </ul>

Learners will generally lean towards one of the sensory learning processes, but learners are able to utilize all three in the learning process. Instruction should incorporate all three processes and it may be more important to match the process to the most appropriate means of delivering the subject matter. The activity which follows will introduce the participants to the VAK model. The survey utilized in the activity is one of several surveys available. Two other on-line surveys are provided here:

<http://www.educationplanner.org/students/self-assessments/learning-styles-quiz.shtml?event=results&A=5&V=12&T=3>.

<https://www.webtools.ncsu.edu/learningstyles/>



## Activity

### Activity

Take 10 to 15 minutes to fill out the survey. A brief discussion will follow the exercise.

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### VAK Survey

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This survey is intended to identify your preferred method of learning. Fill out the provided survey and fill in the total of each section in your instructor manual.

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### Instructional Note

Instruct participants to fill out the survey and total each page. The total of each page is then copied into the manual in the table provided. Once all participants have completed the table in the manual, ask their general impression of the survey and if the style or process fits what they believed was their style prior to the survey. Some participants may be balanced in their scoring and others, not. The main purpose of this exercise is two-fold. It first tells you that all learning style will be represented in a classroom, and learning styles and instructor styles will be similar. That is, if you tend to be an audio style learner, you may prefer instruction techniques that fit that those processes. You may enjoy questioning and audio presentations as an instructor. Remind participants that we instruct to the entire class and a balanced approach to sensory process is best.

Total each section and place the sum in the blocks below:

<b>VISUAL</b>	<b>AUDITORY</b>	<b>KINESTHETIC</b>
number of points: _____	number of points: _____	number of points: _____

While you prefer to learn by using the method with the highest score, you will normally learn best by using all three processes, rather than just your preferred learning style.

### Learning Approaches

## Learning Approaches

<b>Problem Solving</b>	<b>Competitive</b>	<b>Collaborative</b>	<b>Reflective</b>
<ul style="list-style-type: none"> <li>Learners solve problem to reinforce learning objectives</li> </ul>	<ul style="list-style-type: none"> <li>Form competitive atmosphere</li> <li>Games</li> </ul>	<ul style="list-style-type: none"> <li>Learners encouraged to use their various skills to build a more complete team</li> </ul>	<ul style="list-style-type: none"> <li>Individuals working apart from others</li> <li>Reflect on past experiences to reinforce learning objectives</li> </ul>

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Learning approaches move past sensory processes and focuses on how information is assimilated into knowledge, skills and attitude. It can be equated to the higher rungs of Bloom’s hierarchy past just remembering and understanding. There are numerous preferences and styles that can be mentioned here but this document will focus on a few approaches most important in face-to-face settings.

The problem-solving learning approach incorporates activities that requires learners to solve problems that reinforce learning objectives. A problem-centered approach, whether real-life and simulated will reinforce learning objectives. From an instructional perspective, problem solving may be conducted by an individual or in group settings and is more dependent on the subject matter that individual characteristics.

The competitive learning approach where individuals or teams compete with each other to introduce or reinforce a learning objective. The competitive approach generally can be equated to playing games. For example, a Jeopardy-style game can be used effectively in adult group learning settings. In a very simplistic approach, questioning may be considered a competitive learning approach with some learners.

A collaborative learning approach utilizes activities in which individuals or teams collaborate to achieve an objective. This is contrasted to a competitive learning approach whereas learners are encouraged to bring their various knowledge, skills and attitudes to the process to enhance outcomes.

Another important aspect of a learning approach in which individuals work apart from others in the learning setting is the reflective learning approach. This inward reflection on past experiences may reinforce learning objectives. This individual time may provide learners important time to formulate thoughts and, in turn, enhance group learning activities.

## Summary

The slide features a white background with a blue border. At the top, the word "Summary" is written in a large, dark grey font. Below it, three blue rounded rectangular boxes are stacked vertically, each containing a learning objective in white text. The boxes are connected by thin white lines on their left and right sides, forming a continuous frame. At the bottom of the slide, there is a blue footer bar with white text.

Summary

- Understand the definition of learning
- Recognize the differences between the adult learner and the child learner
- Identify the various processes and approaches used by the adult learner

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By the end of this module, participants will understand the meaning of learning and apply the characteristics of the adult learner to adult learning theory. To support this performance objective, the following enabling learning objectives were created:

- Understand the definition of learning
- Recognize the differences between the adult learner and the child learner
- Identify the various processes and approaches used by the adult learner

Coming Up Next

Coming Up Next

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**Instructional Design and Strategies**