

# ADULT LEARNING STYLES

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## INTRODUCTION

The education literature suggests that students who are actively engaged in the learning process will be more likely to achieve success (Dewar 1995; Hartman 1995, Leadership Project 1995). Once students are actively engaged in their own learning process they begin to feel empowered and their personal achievement and self-direction levels rise.

A key to getting (and keeping) students actively involved in learning lies in understanding learning style preferences, which can positively or negatively influence a student's performance (Birkey & Rodman 1995; Dewar 1995; Hartman 1995). It has also been shown that adjusting teaching materials to meet the needs of a variety of learning styles benefits all students (Agogino & Hsi 1995; Kramer-Koehler, Tooney & Beke 1995).

Schroeder (1996) points out that the "typical" student learning style profile is changing on campuses today and there is a much greater variation in the range of learning style preferences to be considered. Therefore it would be wise to understand what learning style preferences are, and how to address them when preparing instructional materials for adults.

Birkey & Rodman point out that, just as there are "striking differences in the way people learn and process information ... there are significant differences in how learning styles are defined and measured (1995)." Perhaps the most important thing an instructor can do is be **aware** that there are diverse learning styles in the student population! First I will summarize some of the most well known theories of learning styles. Then I will show how knowledge of these learning styles can guide you in the development of appropriate instructional strategies.

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What makes adult learners different from kids? Knowles theory of andragogy (adult learning) is an attempt to differentiate the way adults learn from the way children learn. A number of assumptions are made based on this theory as outlined by Cantor (1992, 36-37) and Cranton (1992, 13-14, 49):

- adults are autonomous and self-directed
- adults are goal oriented
- adults are relevancy oriented (problem centered)–they need to know why they are learning something
- adults are practical and problem-solvers
- adults have accumulated life experiences

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Kearsley summarizes what this means to instructors in practical terms: “andragogy means that instruction for adults needs to focus more on the process and less on the content being taught. Strategies such as case studies, role playing, simulations, and self-evaluations are most useful. Instructors adopt a role of facilitator or resource rather than lecturer or grader (1996).”

## WHAT MOTIVATES ADULT LEARNERS?

Adults typically, have different motivations for learning than children such as those pointed out by Cantor (1992, 37-38):

- to make or maintain social relationships
- to meet external expectations – the boss says you have to upgrade skill X to keep your job
- learn to better serve others – managers often learn basic First Aid to protect their employees
- professional advancement
- escape or stimulation
- pure interest

Instructors should be aware of the possible motivations behind their students’ enrollment. Then they can better shape the instructional materials.

## WHAT ARE THE BARRIERS TO ADULT LEARNING?

Cantor also points out the adults have different barriers than children on their way to learning. Some of these potential barriers might include (1992, 39):

- many other responsibilities (families, careers, social commitments)
- lack of time
- lack of money
- lack of child care
- scheduling problems
- transportation problems
- insufficient confidence
- **having** to learn, if told by boss, but not interested or ready

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## DIFFERENCES BETWEEN MEN'S AND WOMEN'S LEARNING STYLES

Not only do adults have different learning styles than children, but men and women do not approach the world of “thinking” in quite the same way either! In 1968, William Perry did a study of undergraduate New England college students (male). From this study he determined that young men pass through a developmental sequence in their thinking modes. Perry isolated nine stages in the sequence, but in outline the stages form this pattern (Bodi 1988; Cranton 1992, 47; McNeer 1991):

### PERRY'S “DEVELOPMENTAL PROCESS”

1. Male students see the world as black/white, right/wrong — they are convinced there **IS** one right answer.
2. Male students see there is diversity of opinion, but feel that authorities that describe diversity are poorly qualified, or just “exercising students” so students will be forced to find the “right answer” themselves.
3. Male students begin to feel that diversity is temporary. They feel that maybe the “right” answer just hasn't been found yet.
4. Male students understand that diversity is a legitimate state, but they would still prefer to know what is “right.”
5. Male students see that everyone has a right to his or her own opinion.
6. Finally, the male student develops a personal commitment to the relativistic world...

Nearly 20 years later, Belenky *et al.* wondered how women fit into this “male” scale (if at all). In their 1986 study they discovered that women indeed do have different “ways of knowing.”

Unlike Perry's developmental stages, Belenky *et al.* chose not to describe the way women think in a staged sequence, although women do move from one style of thinking to others as they mature and gain life experience. In outline, Belenky *et al.* found that women have the following possible “ways of knowing”:

### BELENKY ET AL. “WOMEN'S WAYS OF KNOWING”

1. Silence: women students feel mindless and voiceless, subject to whims of external authority.

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2. Received knowledge: women students feel they can receive knowledge, but not create it.
3. Subjective knowledge: truth and knowledge are private and subjectively known or intuited.
4. Procedural knowledge: women students are invested in learning and applying objective procedures for obtaining and communicating knowledge.
5. Constructed knowledge: women students view knowledge as contextual and can create knowledge found objectively or subjectively.

With those two “thinking structures” in the background, let’s turn to some specific theories on learning styles that have come out of writings in education and psychology.

## LEARNING STYLE PREFERENCES

Litzinger & Osif describe learning styles as “the different ways in which children and adults think and learn (1992, 73).” They see that each of us develops a preferred and consistent set of behaviors or approaches to learning. In order to better understand the learning process, they break it down into several processes:

1. Cognition — how one acquires knowledge.
2. Conceptualization — how one processes information. There are those who are always looking for connections among unrelated events. Meanwhile for others, each event triggers a multitude of new ideas.
3. Affective — people’s motivation, decision-making styles, values and emotional preferences will also help to define their learning styles.

A number of people have tried to “catalogue” the ranges of learning styles in more detail than this. Kolb is perhaps one of the best known, and his thinking is outlined below.

## KOLB’S THEORY OF LEARNING STYLES

First Kolb showed that learning styles could be seen on a continuum running from:

1. Concrete experience: being involved in a new experience

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2. Reflective observation: watching others or developing observations about own experience.
3. Abstract conceptualization: creating theories to explain observations.
4. Active experimentation: using theories to solve problems, make decisions.

Hartman (1995) took Kolb's learning styles and gave examples of how one might teach to each them:

1. for the concrete experienter — offer laboratories, field work, observations or trigger films.
2. for the reflective observer — use logs, journals or brainstorming.
3. for the abstract conceptualizer — lectures, papers and analogies work well.
4. for the active experimenter — offer simulations, case studies and homework.

Although Kolb thought of these learning styles as a continuum that one moves through over time, usually people come to prefer, and rely on, one style above the others. It is these main styles that instructors need to be aware of when creating instructional materials. In order to find out more about each of Kolb's learning styles, and how to teach to them, you may choose to click on any of the learning style names in the diagram on the next page.

**Accommodators (Concrete experience/Active experimenter)** are motivated by the question, "what would happen if I did this?" They look for significance in the learning experience and consider what they can do, as well as what others have done previously. These learners are good with complexity and are able to see relationships among aspects of a system.

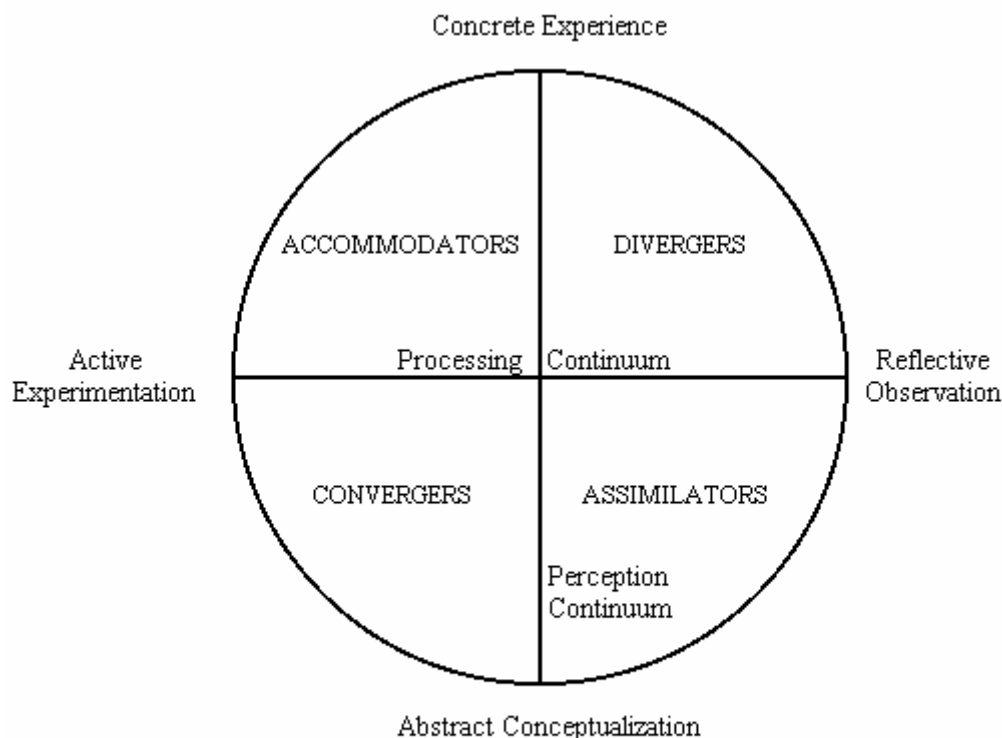
A variety of methods are suitable for this learning style, but

- anything that encourages independent discovery is probably the most desirable.
- accommodators prefer to be active participants in their learning.

The instructors working with this type of student might expect devil's advocate type questions, such as "What if?" and "Why not?"

**Assimilators (Abstract conceptualization/Reflective observer)** are motivated to answer the question, "what is there to know?" They like accurate, organized delivery of

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## Kolb's Learning Styles

*(Diagram from Litzinger and Osif 1992, 79)*

information and they tend to respect the knowledge of the expert. They aren't that comfortable randomly exploring a system and they like to get the 'right' answer to the problem.

Instructional methods that suit Assimilators include the following:

- Lecture method (or video/audio presentation) — followed by a demonstration.
- Exploration of a subject in a lab, following a prepared tutorial (which they will probably stick to quite closely) and for which answers should be provided.

These learners are perhaps less 'instructor intensive' than some other learning styles. They will carefully follow prepared exercises, provided a resource person is clearly available and able to answer questions.

**Convergers (abstract conceptualization/active experimenter)** are motivated to discover the relevancy or "how" of a situation. Application and usefulness of information is

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increased by understanding detailed information about the system's operation.

Instructional methods that suit Convergers include the following:

- Above all, the instruction should be interactive, not passive for these kinds of learners.
- Computer-assisted instruction is a possibility.
- Problem sets or workbooks can be provided for students to explore.

**Divergers (concrete/reflexive learners)** are motivated to discover the relevancy or “why” of a situation. They like to reason from concrete specific information and to explore what a system has to offer and they prefer to have information presented to them in a detailed, systematic, reasoned manner.

Instructional methods that suit Divergers include the following:

- Lecture method — focusing on specifics such as the strengths, weaknesses and uses of a system.
- Hands-on exploration of a system.

The instructor would be best to mingle with the students, answering questions and making suggestions. Ready reference guides provide handy, organized summaries for this kind of learner. Flexibility and the ability to think on your feet are assets when working with Divergers.

## GARDNER'S MULTIPLE INTELLIGENCES

Gardner chose to look at learning styles in a different light. Winters (1995) and Wang (1996) provided the following summary of Gardener's Multiple Intelligences:

1. plays with words (Verbal/Linguistic)
2. plays with questions (Logical/Mathematical)
3. plays with pictures (Visual/Spatial)
4. plays with music (Music/Rhythmic)
5. plays with moving (Body/Kinesthetic)
6. plays with socializing (Interpersonal)
7. plays alone (Intrapersonal)

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Again, each of us uses some of these styles when learning, but we tend to prefer a small number of methods over the rest.

## IMPLICATIONS FOR INSTRUCTION

So where to all these lists of learning styles leave us? You may well wonder. There are probably as many ways to “teach” as there are to learn. Perhaps the most important thing is to be aware that people do not all see the world in the same way. They may have very different preferences than you for how, when, where and how often to learn.

## WHERE DO YOU START?

Go to [learning-styles-online.com](http://learning-styles-online.com) and take the free assessment. Have your students take the assessment and print out the graph for you to review. You’ll be surprised at the results if you accommodate your students’ specific needs!

[learning-styles-online.com](http://learning-styles-online.com)



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