

Learning Styles Principles

Lecture Objectives

Upon completion of this power point presentation, the learner will be able to:

- Cite at least one definition of the term “learning styles”
- Delineate at least three ideas for teachers to incorporate into their use of learning styles
- Describe the key components of Kolb’s Experiential Learning Model
- Describe the assessment categories included in the Dunn and Dunn Learning Styles
- Identify at least three learning styles included in Gardner’s theory of Multiple Intelligence
- Critique the “helpful hints” regarding the use of learning styles
- React in the discussion board to the contradictory findings regarding learning styles cited in the NPR broadcast on 08/29/11
- Discuss your learning style and its implications for your teaching

Definition

Learning styles is the term used to describe “the ways in which, and the conditions under which, learners most efficiently and most effectively perceive, process, store, and recall what they are attempting to learn and how they prefer to approach different learning tasks” (Kitchie, 2008, pp. 114-115). Keefe’s (1979) definition focuses on the way that learners learn, taking into account cognitive, affective, and physiological factor that affect how they perceive, interact with, and respond to the learning environment.

Creating an Environment for Learning

Accepting diversity of learning styles can help the teacher to create an environment for learning that offers experiences that enable each learner to reach his or her full potential. It can also help the teacher to make deliberate decisions about program/course/class design.

Both the style by which the teachers prefers to teach and the style by which the learner prefers to learn can be identified through the use of different instruments and tools. I’ve included a few of these examples below. Please keep these five ideas in mind when examining your personal preference for learning and those you are teaching.

- Teachers need to guard against relying on teaching methods and tools that match their own preferred learning style.
- Teachers are most helpful when they assist learners in identifying and learning via their own learning style preferences.
- Learners should have the opportunity to learn via their own learning style.
- Learners should be encouraged to diversity their learning style preferences.
- Teachers can develop specific learning activities that reinforce each learning style.

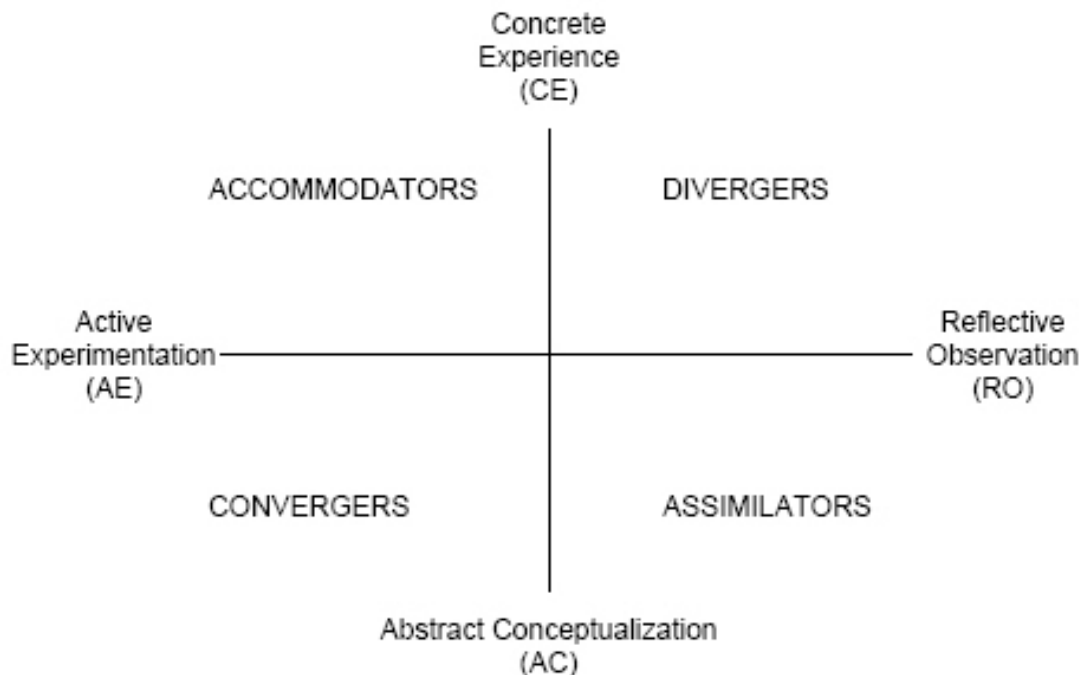
Learning Style Models and Instruments

This is not an inclusive list of available instruments, but it should be useful to you in assessing learners.

1. [Right-brain/left-brain and whole-brain thinking](#)
2. [Field-independent/field-dependent perception](#)
3. [Dunn and Dunn Learning Styles](#) (see diagram below)
4. [Solomon and Felder Learning Styles Inventory](#) (A 44-item survey based upon both [Jung and Myers-Briggs Typology](#))
5. [Kolb's Experiential Learning Model](#) (see diagram below)
6. [McCarthy's 4MAT System](#)
7. [Gardner's Multiple Intelligences](#) (see below)
8. [VARK Learning Styles](#)

Kolb's Experiential Learning Model

Kolb's Learning styles consist of four distinctive learning styles: Concrete experience, reflective observation, abstract conceptualization and active experimentation.



(Image Source: <http://knol.google.com/k/hres-3277-001-employee-training-and-development#>)

The matrix can be read in two dimensions. The first dimension identifies the core concepts on the X and Y Axis. All learning styles concentrate on one specific area:

- **Abstract Conceptualization (AC)** - learning by thinking

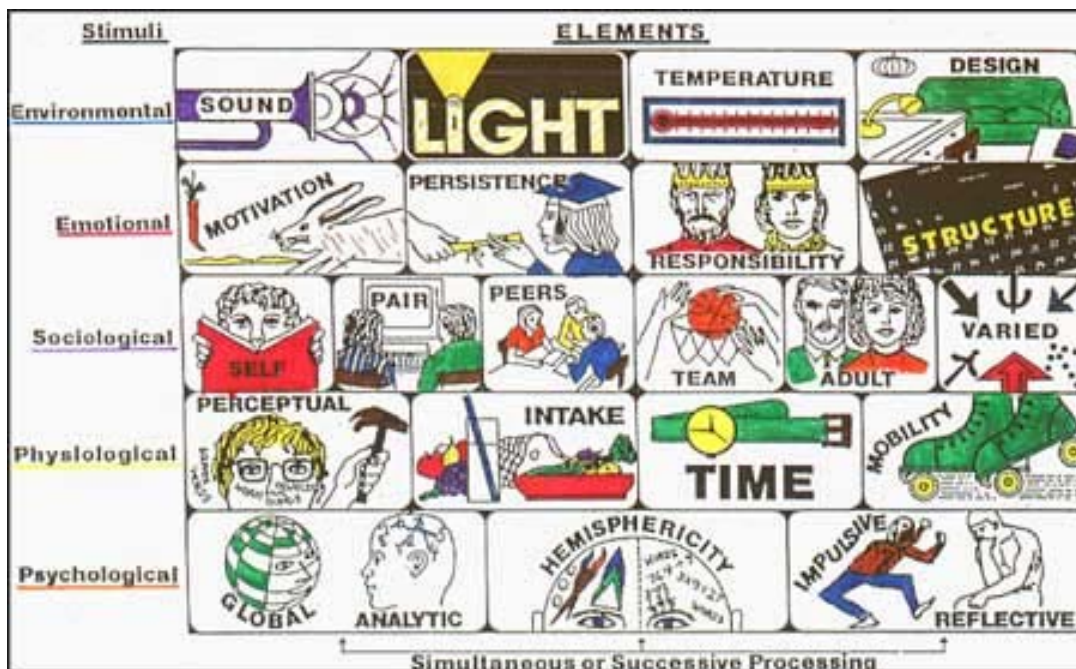
- **Active Experimentation (AE)** - learning by doing
- **Concrete Experience (CE)** - learning by feeling
- **Reflective Observation (RO)** - learning by reflection, watching, and listening

The second dimension identifies the learning styles. Each learning style is made of two core concepts. For example: Active experimentation and Concrete experience concepts create the Accommodators learning style. There are therefore four learning styles existing in the matrix:

- **Accommodators:** Are practical risk takers who work on a trial and error base style of thinking. People with this learning style are very hands on and proactive. They like to consider all possibilities, and gladly experience new challenges.
- **Divergers:** Are highly imaginative and look at problems from different perspectives. Generating ideas and brainstorming are one of the divergers' biggest assets. They tend to specialize in a profession and like to deal with other people
- **Convergers:** Like problems with one single solution. They like to deal with objects rather than people. This learning style is opposite to the divergers learning traits.
- **Assimilators:** have strong theoretical abilities and learning skills. Mostly the plans are based on logical deductions instead of facts. These learners rather deal with abstract thoughts than people. (Zanich, 1985)

Dunn and Dunn Learning Styles

The Dunn and Dunn Learning-Style Model has spawned several diagnostic instruments to evaluate learning style; the first was introduced in 1976.



According to [their website](#), The Dunn and Dunn Learning Styles assessment measures:

- Immediate environment: sound, light, temperature, and seating design.
- Emotionality: motivation, persistence, responsibility/conformity and need for internal or external structure.
- Sociological factors: learning alone, with a partner, as part of a small group or team, with peers, with an authoritative or collegial adult, and/or in a combination of ways.
- Physiological factors: auditory, visual, tactile and/or kinesthetic perceptual preferences; food or liquid intake, chronobiological energy levels, mobility needs.
- Indication of global or analytic cognitive/psychological processing inclinations and impulsive versus reflective inclinations.

Gardner's Multiple Intelligences

Gardner (2011) developed the theory of multiple intelligences; according to his theory, each learner has all of the eight kinds of intelligence listed below but in different proportions:

- Linguistic
- Logical-mathematical
- Spatial
- Musical
- Bodily kinesthetic
- Interpersonal
- Intrapersonal
- Naturalistic

Though originally designed for use with children, this theory can be a framework for the recognition that adults learn in different ways.

Helpful Hints Regarding the Use of Learning Styles

If you don't have time for or access to a learning styles tool, you can use observation and questions to help determine learners' styles:

- Do you prefer to attend lectures or participate in group discussions?
 - Which do you like better, reading or viewing a videotape/film?
 - Would you prefer that a skill be demonstrated first or would you rather I "talk you through" a new procedure?
- Do you give the learners the opportunity to tell you when an instructional strategy or medium is not working for them?
- Encourage learners to become aware of their learning styles and to expand their style ranges.

Remember that there are many ways to influence learning. Provide learners with options whenever possible

Contradictory Findings Regarding Learning Styles

1. Willingham at the University of Virginia
 - “we are on more equal footing than we may think when it comes to how our brains learn”
2. Rohrer at the University of South Florida
 - _ “no scientific evidence supporting learning styles”
3. Willingham concludes that “mixing things up” boosts learners’ attention

References

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