

Kolb's Theory of Learning Styles

David Kolb introduces his experiential learning theory in his 1984 book *Experiential Learning: Experience as the Source of Learning and Development* and provides a model for its application virtually anywhere people are gathered together. Kolb's *Learning Style Inventory* (Kolb, D. A. 1984) is based on John Dewey's emphasis on the need for learning to be grounded in experience, Kurt Lewin's work that stressed the importance of a person's being active in learning, and Jean Piaget's theory on intelligence as the result of the interaction of the person and the environment.

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

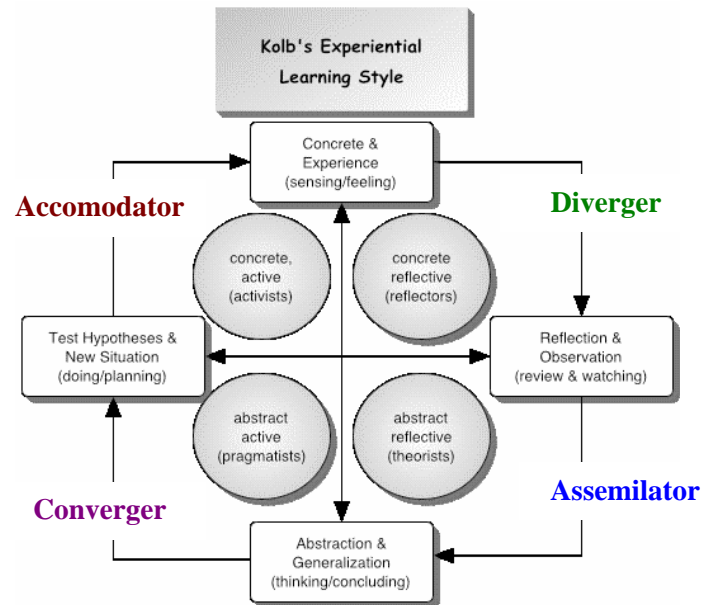
1. concrete experience: being involved in a new experience.
2. reflective observation: watching others or developing observations about own experience.
3. abstract conceptualization: creating theories to explain observations.
4. active experimentation: using theories to solve problems, make decisions.

Kolb's four stage theory uses a model with two dimensions. You can think of the first dimension, as shown in the model, running horizontally is based on *task*. The left end of the dimension is doing the tasks (performing), while the right end is watching the task (observing). The second dimension runs vertically and is based upon thought and emotional processes. The top of the dimension is feeling (responsive feelings - such as Henry David Thoreau), while the bottom of the dimension is thinking (controlled feelings - such as Dr. Spock of Star Trek).

Learning Model

These four positions on the two dimensions describe a four-step learning model or process. Note that if we only fell along ONE dimension, we would have one of four learning styles:

Feeling or Sensing (*Concrete Experience*) - perceive information. This dimension represents a receptive experience based approach to learning that relies on feeling based judgments. They generally find theoretical approaches to be unhelpful and prefer to treat each situation as a unique case. They



learn best from specific examples in which they can be involved. These learners tend to relate to peers,

not authority. Theoretical readings are not always helpful while group work and peer feedback often leads to success.

Watching (*Reflective Observation*) - reflect on how it will impact some aspect of our life. These individuals rely heavily on careful observation in making judgments. They prefer learning situations such as lectures that allow the role of impartial objective observers. These individuals tend to be introverts. Lectures are helpful to this learner (they are visual and auditory). They look for a facilitator who is both a taskmaster and a guide. This learner wants their performance to be measured by external criteria.

Thinking (*Abstract Generalization or Conceptualization*) - compare how it fits into our own experiences. These individuals tend to be more oriented towards things and symbols, and less towards other people. They learn best in authority-directed, impersonal learning situations that emphasize theory and systematic analysis. They are frustrated by and gain little from unstructured "discovery learning" approaches such as exercises and simulations. Case studies, theoretical readings and reflective thinking exercises help this learner.

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Doing (testing in new situation or *Active Experimentation*) - think about how this information offers new ways for us to act. These individuals learn best when they can engage in such things as projects, homework, or group discussions. They dislike passive learning situations such as lectures. These individuals tend to be extroverts. They want to touch everything (kinesthetic or tactile). Problem solving, small group discussions or games, peer feedback, and self directed work assignments all help this learner. This learner likes to see everything and determine their own criteria for the relevance of the materials.

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. And it is these main styles that facilitators need to be aware of when creating learning interventions.

Accommodator (Concrete experience/Active experimenter) (a.k.a. Activist) are motivated by the question, "what would happen if I did this?" They tell themselves "I'm game for anything." They excel in adapting to specific immediate circumstances. 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. They tend to solve problems intuitively, relying on others for information. A variety of methods are suitable for this learning style, but anything that encourages independent discovery is probably the most desirable. The accommodator is at ease with people but is sometimes seen as impatient and pushy.

Assimilator (Abstract conceptualization/Reflective observer) (a.k.a. Theorist) are motivated to answer the question, "what is there to know?" They like accurate, organized delivery of information and they tend to respect the knowledge of the expert. Their strengths lie in their ability to create theoretical models. 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: lecture method (or video/audio presentation)--followed by a demonstration, or 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

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Converger (Abstract conceptualization/Active experimenter) (a.k.a. Pragmatists) are motivated to discover the relevancy or "how" of a situation. They ask "How can I apply this in practice?" Application and usefulness of information is increased by understanding detailed information about the system's operation. The pragmatist's greatest strength is in the practical application of idea. Instructional methods that suit Converger include:

- interactive instruction, not passive
- computer-assisted instruction is a possibility
- problem sets or workbooks can be provided for students to explore

Diverger (concrete/reflexive learners) (a.k.a. Reflectors) 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. They like time to think about the subject. Their strengths lie in an imaginative ability. Instructional methods that suit Divergers include:

- lecture method--focusing on specifics such as the strengths, weaknesses and uses of a system
 - hands-on exploration of a system
- Flexibility and the ability to think on your feet are assets when working with the Diverger.

A reminder that we learn from all four experiences (quadrants), but one of the four is our favorite. The ideal training environment would include each of the four processes. For example, the cycle might begin with the learner's personal involvement through concrete experiences; next, the learner reflects on this experience, looking for meaning; then the learner applies this meaning to form a logical conclusion; and finally, the learner experiments with similar problems, which result in new concrete experiences. The learning cycle might begin anew due to new and different experiences.

Additional Resources:

<http://www.businessballs.com/kolblearningstyles.htm>
<http://www.cyg.net/~jblackmo/diglib/styl-d.html>

Kolb, David A., Learning Styles Inventory, McBer and Company, 1976. Revised 1985

Kolb, David A., Experiential Learning: Experience as the Source of Learning and Development (1984)

Concept/Model Application Individual