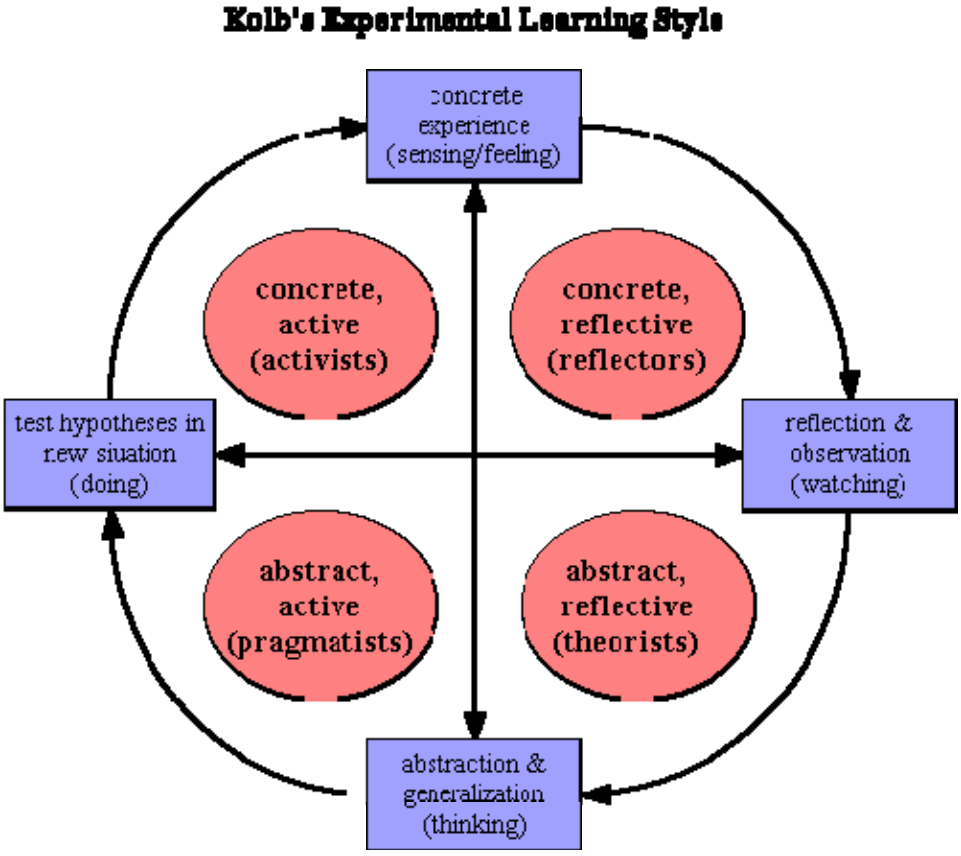
Kolb's Learning Style Inventory

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.

Kolb's four stage theory uses a model with two dimensions. You can think of the first dimension, as shown in the model below, running horizontally and it 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 our 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 fame).



You might also think of the horizontal dimension as how we react to the environment around us (extroverts jump in and do it, introverts observe from the sidelines). While the vertical dimension is the soul or ego within us (the left side of the brain is logical, while the right side of the brain is creative and emotional). Notice that this is very similar to other two dimensional models, such as the Managerial Grid.

Learning Model

These four positions on the two dimensions describe a four-step learning model or process (note that each position is represented by a blue colored box in the above diagram). 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 (they are people persons - they want to get along with others, not be bossed around). Theoretical readings are not always helpful while group work and peer feedback often leads to success. Planned activities should apply learned skills. The instructor acts as coach/helper for this self-directed autonomous learner.

◆ ***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). This learner wants the instructor to provide expert interpretation. They look for an instructor 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. Very little else helps this learner.

◆ ***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. This learner wants 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.

Learning Style Dimensions

These two lines intersect each other and form four quadrants (represented by the pink circles in the above diagram). These quadrants form the four personal learning styles (These four quadrants represent a more complex model of learning styles as they are based upon two dimensions):

◆ ***Assimilator (or Theorists)*** Those with highest scores in **Abstract Conceptualization (AC) and Reflective Observation (RO)** fall into this category. They like to learn using abstract conceptualization and reflective observation (lecture, papers, analogies) and like to ask such questions as "How does this relate to that?" Training

approach - case studies, theory readings, and thinking alone. Their strengths lie in their ability to create theoretical models. They tend to be less interested in people and less concerned with practical applications of knowledge. They are often more concerned with abstract concepts. Theorists are often found in research and planning departments. This learning style is more characteristic of basic science and mathematics than applied sciences.

This person's strength lies in the ability to understand and create theories. A person with this learning style excels in inductive reasoning and in synthesizing various ideas and observations into an integrated whole. This person, like the converger, is less interested in people and more concerned with abstract concepts, but is less concerned with the practical use of theories. For this person it is more important that the theory be logically sound and precise; in a situation where a theory or plan does not fit the "facts," the Assimilator would be likely to disregard or re-examine the facts. As a result, this learning style is more characteristic of the basic sciences and mathematics rather than the applied sciences. Assimilators often choose careers involving research and planning.

◆ ***Converger (or Pragmatists)*** Those with highest scores in **Abstract Conceptualization (AC) and Active Experimentation (AE)** fall into this category. They like to learn using abstract conceptualization and active experimentation (laboratories, field work, and observations). They ask "How can I apply this in practice?" Training approach - peer feedback; activities that apply skills; trainer is coach/helper for a self-directed autonomous learner. The pragmatist's greatest strength is in the practical application of idea. They tend to be relatively unemotional. They prefer to deal with things rather than people.

This person's greatest strength lies in the practical application of ideas. A person with this style seems to do best in those situations where there is a single correct answer or solution to a question or problem and can focus on specific problems or situations. Research in this style of learning indicates that Convergers are relatively unemotional, preferring to deal with things rather than people. They tend to have narrow technical interests and quite often choose to specialize in subjects such as the physical sciences, engineering, and computer sciences..

◆ ***Accommodator (or Activists)*** Those with highest scores in **Concrete Experience (CE) and Active Experimentation (AE)** fall into this category. They like to learn using concrete experience and active experimentation (simulations, case study, homework). They tell themselves "I'm game for anything." Training approach - practicing the skill, problem solving, small group discussions, peer feedback; trainer should be a model of a professional, leaving the learner to determine her own criteria for relevance of materials. Their strengths lie in doing things and involving themselves in new experiences. They are called accommodators because they excel in adapting to specific immediate circumstances. They tend to solve problems intuitively, relying on others for information. Accommodators are often found working in marketing and sales. The accommodator is at ease with people but is sometimes seen as impatient and pushy.

Accommodators are polar opposites form Assimilators. Their greatest strengths lie in carrying out plans and experiments and involving themselves in new experiences. They are risk-takers and excel in those situations requiring quick decisions and adaptations. In situations where a theory or plan does not fit the "facts," they tend to discard it and try something else. They often solve problems in an

intuitive trial and error manner, relying heavily on other people for information. Accomodators are at ease with people but may be seen as impatient and "pushy." Their educational background is often in technical or practical fields such as business or education. They prefer “action-oriented" jobs such as nursing, teaching, marketing, or sales.

◆ ***Diverger (or Reflectors)*** Those with highest scores in **Concrete Experience (CE) and Reflective Observation (RO)** fall into this category. They like to learn using reflective observation and concrete experience (logs, journals, brainstorming). They like time to think about the subject. Training approach - lectures with plenty of reflection time; trainer should provide expert interpretation - taskmaster/guide; judge performance by external criteria. Their strengths lie in an imaginative ability. They tend to be interested in people and emotional elements. They have broad cultural interests and tend to specialize in the arts. This style is common in individuals from humanities and liberal arts backgrounds.

Divergers have characteristics opposite from convergers. Their greatest strengths lie in creativity and imaginative ability. A person with this learning style excels in the ability to view concrete situations from many perspectives and generate many ideas such as in a "brainstorming" session. Research shows that Divergers are interested in people and tend to be imaginative and emotional. They tend to be interested in the arts and often have humanities or liberal arts backgrounds. Counselors, organizational development specialists, and personnel managers tend to be characterized by this learning style.

We must remember 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.

The training activities should be flexible so that each learner could spend additional time on his or her preferred learning style. Also, you can enter the learning cycle at any one of the four processes.

Examples

- Learning to ride a bicycle:
  - Reflectors - Thinking about riding and watching another person ride a bike.
  - Theorists - Understanding the theory and having a clear grasp of the biking concept.
  - Pragmatists - Receiving practical tips and techniques from a biking expert.
  - Activists - Leaping on the bike and have a go at it.
- Learning a software program:
  - Activists - Jumping in and doing it.
  - Reflectors - Thinking about what you just performed.
  - Theorists - Reading the manual to get a clearer grasp on what was performed.
  - Pragmatists - Using the help feature to get some expert tips.
- Learning to coach:
  - Pragmatists - Having a coach guide you in coaching someone else.
  - Activists - Using your people skills with what you have learned to achieve your own coaching style.
  - Reflectors - Observing how other people coach.
  - Theorists - Reading articles to find out the pros and cons of different methods.
- Learning algebra:
  - Theorists - Listening to explanations on what it is.
  - Pragmatists - Going step-by-step through an equation.
  - Activists- Practicing.
  - Reflectors - Recording your thoughts about algebraic equations in a learning log.

【Notice that Kolb's model is actually two models in one:】

A four step learning process:

1.Watching [introvert - reflection]
2.Thinking [mind]
3.Feeling [emotion]
4.Doing [extrovert - muscle]

Which then goes on to describe the four learning styles used within the learning process:

1.Reflectors
2.Theorists
3.Pragmatists
4.Activists