LESSON 4

Learning And Learning Styles

Dear Friends,
This following lesson is going to explain you
What is Learning?
What are various styles of learning
What is the process of learning.
What are various theories of learning.
What are principles of learning.
And how learning can be made more effective.

And hence you will be able to apply the above for live training session.

Introduction:

Before we discuss about learning and learning styles let us first understand how does knowledge of learning going to effect the training.
Now we already know the TRAINING IS LEARNING PROCESS so understanding learning in detail will let us know how training can be more effective. By the end of this session you will be able to apply the concept of learning for training.

What is Learning?

Learning has been defined as a relatively permanent change in behavioral potentiality that occurs as a result of reinforced practice. The following elaborates on this basic definition:

- Learning is indexed by a change in behavior, which must be translated into observable behavior. After learning, learners are capable of performing something that they could not do before the learning experience.

- This change is relatively permanent, it is neither transitory nor fixed.

- The change in behavior need not occur immediately following the learning experience. Although there may be a potential to act differently, this potential may not be translated into a new behavior immediately.

- The change in behavior results from experience or practice.

- The experience or practice must be reinforced.

Learning a subject seems to involve three almost simultaneous processes:

First, there is acquisition of new information - often information that runs counter to or is a replacement for what the person has previously known.

A second aspect of learning may be called transformation - the process of manipulating knowledge to make it fit new tasks. Transformation comprises the ways we deal with information in order to go beyond it.

A third aspect of learning is evaluation - checking whether the way we have manipulated information is adequate to the task.

Also, there is more than one type of learning. A committee of colleges and universities studied learning behaviors and broke learning into three main domains or Taxonomies. Knowing the type of knowledge, skill, or attitude that is discussed in the taxonomy will assist you in determining the instructional strategy.

Learning Styles

Just as every person is unique, so is every learner. But how much this uniqueness matters has been a great debate among educators, trainers, and psychologists. A learning style is a student's consistent way of responding to and using stimuli in the context of learning. Some say that each student learns best using a learning strategy or method that best matches his or her need. While others say that what matters the most is the learning process, not the style. The research tends to favor the latter group. Achieving a solid learning environment that meets the student's need, rather than their styles seems to be the most important key for effective learning.

The Learning Process

While learning styles show that we are all different, the learning process shows how and why we learn something. This, perhaps, is even more important than addressing the various learning styles. Although people have a preferred style, they can still learn under almost any style. While various learning styles can make it easier or harder for a person to master a subject, if the learning process is not in place, it makes that subject almost unachievable.

Choose Delivery System

The instructional and support material that will provide the most effective learning stimulus are specified in this step. Care should be taken not to select materials just because they are available. For example, there are probably several hundred VCR instructional tapes floating around that were developed, not because it was the best media for the instruction to be presented, but because a camera and VCR were readily available. The purpose in this step is not to show your mastery of the latest whiz-bang technology, but to select media that will best magnify the learning process. When determining the media best suited to train the objective consider:

- *The instructional setting:* What type of setting is required? Is it up to date or does it have to be modified? If the instructors and learners have to travel to the sight, what materials must they bring?

- *Media characteristics:* What is the best media for this type of instruction? How must the media be obtained? Must we produce it? If so, do we have the technical expertise?

- *Instructional material:* Can it be developed within the proposed budget? What are the constraining factors for producing this material? Will the technology likely change before the proposed training material can be produced?

- *Time:* What are the critical time factors involved? When and how many learners must be trained by a given time? Is there more than one group to be trained and how closely will each group follow?

- *Instructors:* Are they qualified for this type of instruction? Must a Train The Trainer class be given to bring the instructors up to par? How long will it take to bring them up to par? How many instructors are available for this instruction?

Each type of instructional material has certain points to consider:

- *Job Performance Aid:* Do people just need simple reminders or a list of steps for performing a task?

- *Technical manual:* Is the manual already available? If so, must additional material be developed to enhance the manual for instructional purposes?

- *Decals:* How big? What color? Where exactly must they be placed? Must briefings be given about the decal?

- *Flowcharts and schematics:* Should these be decals? Where must they be placed so that people will use them?

- *Self Teaching Package:* Are books and manuals available? Are they geared to the students educational level? Are the workers motivated to learn on their own?

- *Programmed text:* At what level must it be? Is additional instruction needed?

- *Multimedia computer programs:* This type of instruction takes a great deal of time and resources to develop. What must be done to complete it in time and within budget? After it is developed, for how long of a time period will it be valid?

- *Computer Aided Instruction:* Do we have the authoring tools available? Do we have training specialist who can develop the instruction with the authoring tools or must they be instructed in the new media?

Personalized Instruction: Are coaches readily available to aid the learners. What goals need to be established and how will the learners obtain them?

On-The-Job Training: Are the supervisors ready to take on the task of providing training and coaching? Must they be instructed in On-The-Job learning packages? Do they have the time? Are trainers needed for this type of training? If so, what will be their role?

Resident Instruction: in-house: Do we have instructors who can perform this type of training? Contract Training: Will it be given at our location or a separate location? What sort of time frame is involved?

Lockstep or self pace: Self pace is generally consider better in most cases because it allows each learner to proceed at her or his own pace, but it is more difficult to manage than lockstep and usually requires more instructors because of the wide range of variables that take place within the learning environment.

Develop Instruction

Only after all the preplanning has been accomplished, is it time to start developing the instructional material. Developing different forms of courseware requires a certain about of skill and art.

Synthesize

When developing the training material and media, ensure that it is synthesized into an integrated program. It should flow as naturally as possible, with each lesson block building the foundation for the next one. Provide variety that is conductive to learning. Break practice periods up with instructional periods, rather than having all the instruction in the beginning followed by nothing but practice.

Time will have to be consider when synthesizing the complete learning program. For example, if you have five, 3 hour blocks of instruction, how do you break them down to run smoothly in two days? Which one gets chopped to two hours one day and one hour the next day. Will it have an effect on learning? Must the blocks run in order or can you switch them so the least difficult block gets broken apart. Will it be better to break the most difficult one apart so the learners get a respite from the toils of hard learning? Since most workdays are eight hours and your program totals 15 hours, what should be done with the one additional hour that will best benefit the organization?

In the U.S. Army Artillery there is a firing method known as the bracketing process. Fire and adjust! Fire and adjust! This process is continued until there is fire for effect, and then adjusted again until the target is hit!

Developing effective courseware is the same. Train and adjust! Train and adjust! Continue with the SAT process until the training is no longer needed or until the training courseware is the best piece of training material produced and then some!

Validate Instruction

The last step is to validate the material by using representative samples of the target population and then revising the program as needed. The heart of the systems approach to training is revising and validating the instructional material until the learners meet the planned learning objectives. Also, it should not be thought of as a single shot affair. Success or failure is not measured at a single point.

The initial validation will depend upon the complexity of the training material and your resources. Listed below is a procedure that provides an effective validation of a large training program. Adjust it as needed to fit the size and complexity of your program, but keep in mind that the closer your validation follows this one, the less problems you will encounter during your training.

Select the participants that will be in the trials. The participants should be randomly selected, but they must represent all strata of the target population, bright, average, and slow learners. They should be clearly told what their roles are in the validation process are. Let them know that they are helping to develop and improve the lessons and that they should feel free to tell you what they think about it. The participants should be pretested to ensure that the students learn from the instructional material and not from past experience.

Conduct individual trials. This trial is performed on one learner at a time. The instruction is presented to the learner. The separate pieces of instructions, tests, practice periods, etc., should be timed to ensure they match the estimated times. Do not tutor unless the learner cannot understand the directions. Whenever you help or observe the learner having difficulty with the material, document it.

Revise instruction. Using the documents from the individual trials, revise the material as needed. Closely go over any evaluations that were administered. A large number of wrong answers for an item indicates a trouble area. Conversely, a large number of correct answers for an item could indicate the learners already knew the material, the test items were too easy, or the lessons over taught the material.

Repeat individual trials until the lesson does what it is supposed to do. There is no magical number for individual trials. From three to five times seems to be the usual number. Also, if you are trialing a large course, you might only need to trial specific troublesome areas of the course, rather than the whole course itself.

Conduct group trial. After you are satisfied with the results of the individual tryouts, move on to the group tryouts. These can be of any size. It may consist of several small groups, one large group, or a combination of both. The procedure is the same as the individual tryouts except for one difference. At some point in the trials you must determine if the program needs to be accepted or if it needs major revision. Usually a minimum of two successful tryouts are conducted to ensure the program teaches. Minor problems should not hold up implementing the program. As was stated earlier in this

section, revisions do not stop upon the first implementation of the program, but are performed throughout the life of the program

Learning Styles

Or, How We Go From the Unknown To the Known

A learning style is a studentís consistent way of responding to and using stimuli in the context of learning. There are various instruments used to determine a student's learning style. The first style to be discussed is VAK (Visual, Auditory, Kinesthetic), which is derived from the accelerated learning world, and seems to be about the most popular model nowadays. Its main strength is that it is quite simple, which appeals to a lot of people. Its main weakness, is that the research does not really support it.

Kolb's learning inventory describes a learning process and a style, which makes it quite interesting. It can be thought of as a simpler version of the MBTI which is based upon determining the personality type. Kolb's version uses two dimensions, while the MBTI uses two similar dimensions, plus two additional ones.

Howard Gardner's Multiple Intelligences seems to provide the most promising outlook for diversifying learning.

WARNING**: These various learning styles or intelligences are points along a scale that help us to discover the different forms of mental representation; they are not good characterizations of what people are (or are not) like. We should not divide the population into a set category (e.g. visual person, extrovert). What these various instruments are doing is allocating the person along some point on a continuum (similar to measuring height or weight). In other words, do not pigeon-hole people as we are all capable of learning under any style or intelligence no matter what our**
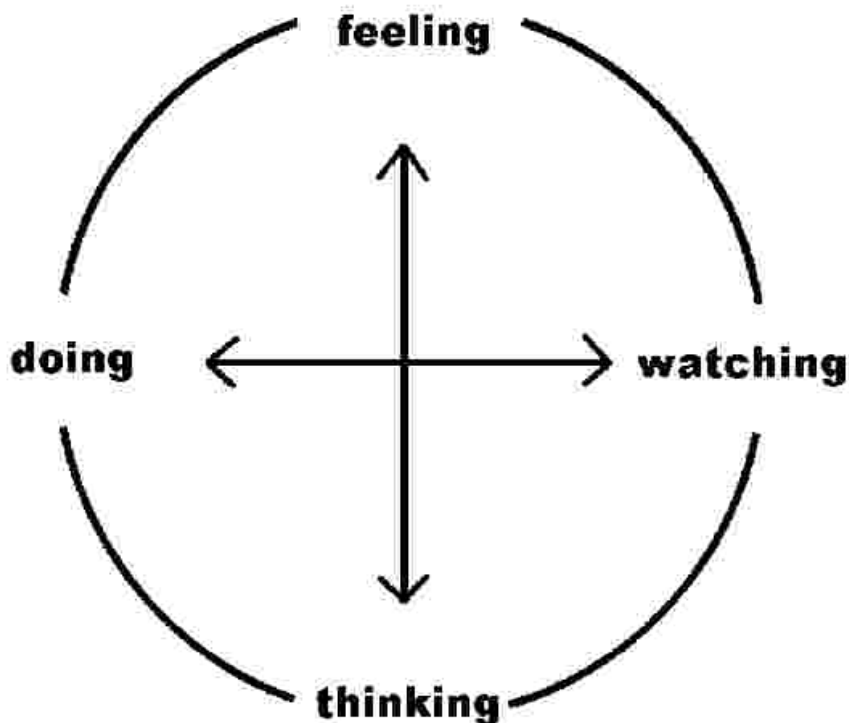
preference is●

Kolb Learning Styles

David Kolb's learning styles model

David Kolb developed this learning styles model in 1984. Kolb's learning styles model is based on two lines of axis (continuums): our approach to a **task** - (preferring to do or watch), and our **emotional** response (preferring to think or feel). The theory sets out these four preferences, which are also possible different learning methods:

- doing (active experimentation)
- watching (reflective observation)
- feeling (concrete experience)
- thinking (abstract conceptualisation)

These learning styles characteristics are normally shown as two lines of axis. The east-west axis is called the Processing Continuum (how we approach a task), and the north-south axis is called the Perception Continuum (our emotional response, or how we think or feel). This also describes four different learning styles (and also methods):

The combination of where our preference lies on each axis produces four possible learning style types:

- **activist** (doing and feeling preferences, or concrete-active)
- **reflector** (watching and doing, or concrete-reflective)

- **theorist** (watching and thinking, or abstract-reflective)
- **pragmatist** (thinking and doing, or abstract-active)
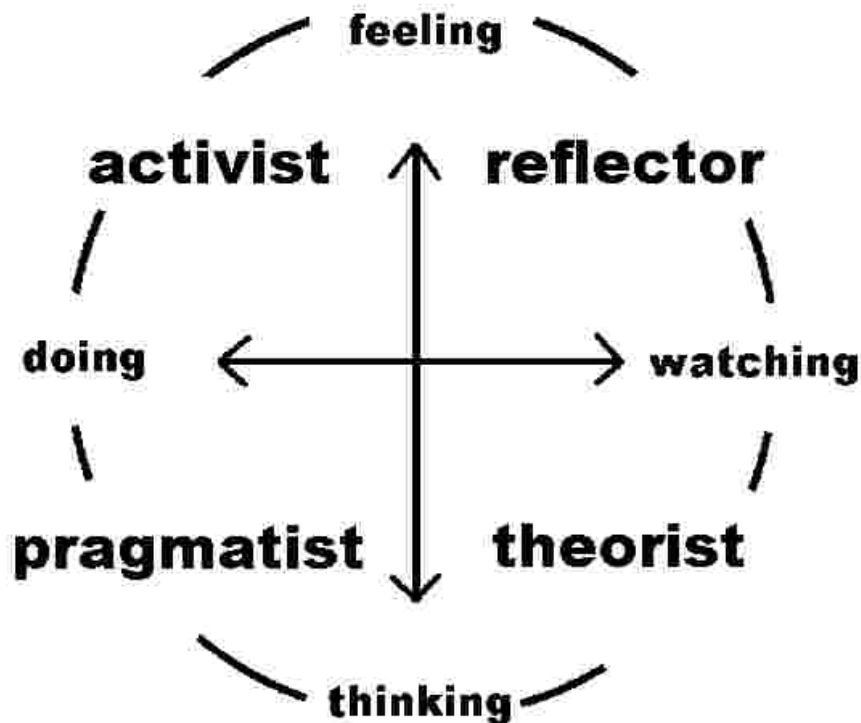
Knowing a person's (and your own) learning style enables learning to be orientated according to the preferred method. That said, everyone responds to and needs the stimulus of all types of learning style - it's a matter of using emphasis that fits best with a person's learning style preferences:

- **activist** - hands-on, relies on intuition rather than logic, uses other people's analysis, and likes practical, experiential approach.
- **reflector** (watching and doing, or concrete-reflective) - able to look at things from different perspectives, sensitive, prefers to watch rather than do it, gathers information and uses imagination to solve problems.
- **theorist** (watching and thinking, or abstract-reflective) - concise, logical approach, ideas and concepts are more important than people, requires good clear explanation rather than practical opportunity.
- **pragmatist** (thinking and doing, or abstract-active) - can solve problems and will use learning to apply to finding solutions to practical issues, prefers technical tasks, less concerned with people and interpersonal aspects.

For instance - don't expect theorists to be comfortable being thrown in at the deep end without notes and instructions. Conversely, activists may become frustrated if unable to get hands on experience as soon as possible.

As with any other model, this is a guide, not an absolute set of rules.

VAK Learning Styles

The VAK learning Style uses the three main sensory receivers - Vision, Auditory, and Kinesthetic (movement) to determine the dominate learning style.
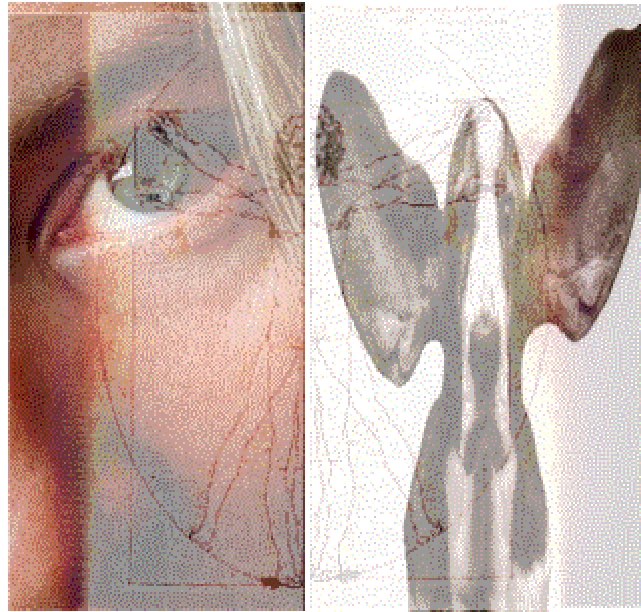
Learners use all three to receive information. However, one or more of these receiving styles is normally dominant. This dominant style defines the best way for a person to learn new information by filtering what is to be learned. This style may not always to be the same for some tasks. The learner may prefer one style of learning for one task, and a combination of others for another task.

Classically, our learning style is forced upon us through life like this: In grades kindergarten to third, new information is presented to us kinesthetically; grades 4 to 8 are visually presented; while grades 9 to college and on into the business learning environment, information is presented to us auditory by lectures.

As trainers, we need to present information using all three styles. This allows all learners, no matter what their preferred style is, the opportunity to become involved. It also allows a learner to be presented with the other two methods of reinforcement. Just because we prefer one style, does not mean that the other two do us no good. On the contrary, they help us to learn even faster by reinforcing the material. Some hints for recognizing and implementing the three styles are:

Auditory learners often talk to themselves. They also may move their lips and read out loud. They may have difficulty with reading and writing tasks. They often do better talking to a colleague or a tape recorder and hearing what was said. To integrate this style into the learning environment:

Begin new material with a brief explanation of what is coming. Conclude with a summary of what has been covered. This is the old adage of "tell them what they are going to lean, teach them, and tell them what they have learned."

- Use the Socratic method of lecturing by questioning learners to draw as much information from them as possible and then fill in the gaps with your own expertise.

- Include auditory activities, such as brainstorming, buzz groups, or Jeopardy.

- Leave plenty of time to debrief activities. This allows them to make connections of what they leaned and how it applies to their situation.

- Have the learners verbalize the questions.

- Develop an internal dialogue between yourself and the learners.

Visual learners have two subchannels - *linguistic* and *spatial*. Learners who are *visual-linguistic* like to learn through written language, such as reading and writing tasks. They remember what has been written down, even if they do not read it more than once. They like to write down directions and pay better attention to lectures if they watch them. Learners who are *visual-spatial* usually have difficulty with written language and do better with charts, demonstrations, videos, and other visual materials. They easily visualize faces and places by using their imagination and seldom get lost in new surroundings. To integrate this style into the learning environment:

- Use graphs, charts, illustrations, or other visual aids.

- Include outlines, agendas, handouts, etc. for reading and taking notes.

- Include plenty of content in handouts to reread after the learning session.

- Leave white space in handouts for note taking.

- Invite questions to help them stay alert in auditory environments.

- Post flip charts to show what will come and what has been presented.

- Emphasize key points to cue when to takes notes.

- Eliminate potential distractions.

- Supplement textual information with illustrations whenever possible.

- Have them draw pictures in the margins.

- Show diagrams and then explain them.

Have the learners envision the topic or have them act out the subject matter.

Kinesthetic learners do best while touching and moving. It also has two subchannels - kinesthetic (movement) and tactile (touch) They tend to lose concentration if there is little or no external stimulation or movement. When listening to lectures they may want to take notes. When reading, they like to scan the material first, and then focus in on the details (get the big picture first). They typically use color highlighters and take notes by drawing pictures, diagrams, or doodling. To integrate this style into the learning environment:

- Use activities that get the learners up and moving.
- Play music, when appropriate, during activities.
- Use colored markers to emphasize key points on flipcharts or white boards.
- Give frequent stretch breaks (brain breaks).
- Provide toys such as Koosh balls and Play-Dough to give them something to do with their hands.
- To highlight a point, provide gum, candy, scents, etc. which provides a cross link of scent (aroma) to the topic at hand (scent can be a powerful cue).
- Provide highlighters, colored pens and/or pencils.
- Guide learners through a visualization of complex tasks.
- Have them transfer information from the text to another medium such as a keyboard or a tablet.

Carl Jung and Myers Briggs Type Indicator (MBTI)

During the early 1900s, Carl Jung established a field identifying distinct personality patterns. Many theorists have since broken these patterns into categories attempting to make them easier to understand. Carl Jung was a contemporary of Sigmund Freud and a leading exponent of Gestalt personality theory. Jung developed a ground-breaking personality theory that introduced two attitudes - extraversion and introversion (1933a). Later he described human behavior as a combination of four psychic functions - thinking/feeling and intuition/sensation (1933b). Thinking and feeling are said to be rational functions because they both require acts of judgments. Sensation and intuition involve immediate experiences. The MBTI, Kolb's *Learning Style Inventory, Managerial Grid*, and a number of other instruments all use a form of extraversion/introversion. His four other functions are also closely tied with these instruments.

The most widely used personality survey instrument is the Myers Briggs Type Indicator (MBTI), followed closely by the DiSC assessment (Carlson Learning). The MBTI can be an aid in understanding the individual differences. This is why it is more complicated than the other models discussed here, since they are strictly learning models why the MBTI is a personality model. However, our personality does play an important part in determining our learning style. And it does tie in within the other models so we will discuss its part in the the learning process.

Scores obtained from the MBTI indicate a person's preference on each of four dichotomous dimensions:

⦿
Extroversion (E) versus Introversion (I) [similar to two dimensional behavioral models and Kolb's Learning Style Inventory]
⦿
Sensing (S) versus iNtuition (N)
⦿
Thinking (T) versus Feeling (F) [similar to two dimensional behavioral models and Kolb's Learning Style Inventory]
⦿
Judging (J) versus Perceptive (P)

1. Extroversion (E) versus Introversion (I)

This indicates whether a learner prefers to direct attention towards the external world of people and things or toward the internal world of concepts and ideas. This preference tells us from where people get their energy.

Introverts find energy in the inner world of ideas, concepts, and abstractions. They can be sociable but need tranquility to regain their energy. They want to understand the world; they concentrate and the tend to be reflective thinkers. They think more than talk. Introverted learners want to develop frameworks that integrate or connect the information that they learn, this becomes knowledge is the interconnection of the material and to see a global view.

Extroverts find energy in things and people. They prefer interaction with others, and tend to be action-oriented. They also tend to think on their feet. They talk more than listen. Extroverted learners learn by teaching others. They do not normally understand the subject until they try to explain it to themselves or others (working in groups). Problem Based Learning and Collaborative Learning are good teaching techniques for this group.

2. Sensing (S) versus iNtuition (N)

This indicates whether a learner prefers to perceive the world by directly observing the surrounding reality or through impressions and imagining possibilities.

Sensing people choose to rely on their five senses. They are detail-oriented, they want facts, and they trust them. Sensing learners prefer organized, linear, and structured lectures (systematic instruction or step-by-step learning).

Intuitive people seek out patterns and relationships among the facts they have gathered. They trust hunches ("sixth" sense) and their intuition and look for the "big picture." They also value imagination and innovation. Intuitive learners prefer various forms of discovery learning and must have the big picture (metaphors and analogies), or an integrating framework in order to understand a subject. They like concept maps or and often compare and contrast tables.

3. Thinking (T) versus Feeling (F)

This indicates how the learner makes decisions, either through logic or by using fairness and human values.

Thinkers decide things impersonally based on analysis, logic, and principle. They value fairness - focusing on the situation's logic, and placing great weight on objective criteria in making a decision. They naturally see flaws and tend to be critical. Thinking learners prefer clear goal and objectives. They want to see precise, action-oriented cognitive, affective and psychomotor objective. They also want to know what they have to do to learn the material.

Feelers value harmony by focusing on human values. They focus on human values and needs as they make decisions or arrive at judgments. They tend to be good at persuasion and facilitating differences among group members. They value empathy and harmony. Feeling learners enjoy the small group exercises, especially harmonious groups.

4. Judging (J) versus Perceptive (P)

This indicates how the learner views the world, either as a structured and planned environment or as a spontaneous environment.

Judging people are decisive, self-starters and self-regimented. They also focus on completing the task, knowing the essentials, and they take action quickly. They plan their work and work their plan. Deadlines are sacred as they see time as a finite resource. Judging learners need tools that help them to plan their work and work their plan. They want guides that give quick tips. They can be encouraged by offering self-improvement.

Perceptive learners are curious, adaptable, and spontaneous. They start many tasks, want to know everything about each task, and often find it difficult to complete a task. Deadlines are meant to be stretched while more information is gathered as they see time as a renewable resource. They like to leave their options open. Perceptive learners often postpone doing an assignment until the last minute. They are not lazy, they are merely seeking information up to the very last minute. Breaking down a complex project into a series of sub-assignments and providing deadlines will keep perceptive learners on target. Also they are often process oriented (emphasis is on how the task is completed) and will easily adapt as long as they know the how.

MBTI Model

The MBTI model would have two dimensions - height and width, similar to Kolb's and other models, but it would also a third dimension - depth. Extroversion/Introversion would be on the horizontal axis, while Feeling/Thinking would be on the vertical axis. This is represented by the model below.
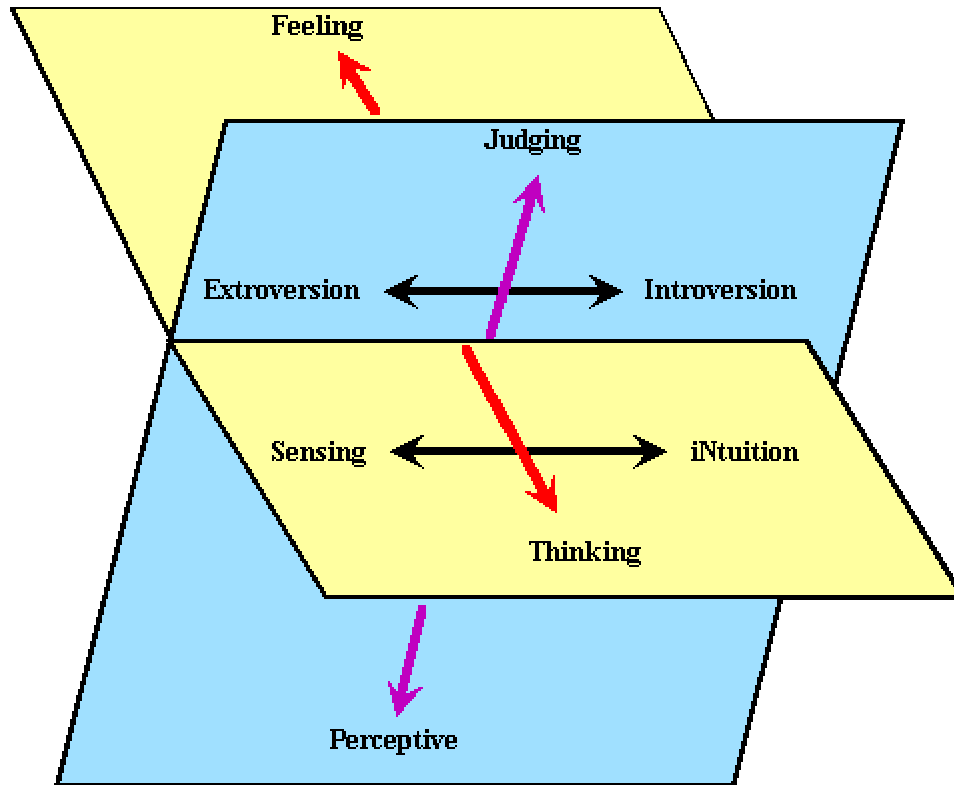
MBTI Model

The depth (third dimension) of Extroversion/Introversion (EI) would be Judging/Perceptive (JP). This might be thought of as how much time (JP) we are willing to stick to a task (EI) rather it be actively engaging in it or reflecting on it.

The depth (third dimension) of Feeling/Thinking (FT) would be Sensing/iNtuition (SN). This might be thought of as using our various senses, to include our "sixth sense" (SN) when thinking or feeling (FT) about a subject.

"although they are not necessarily dependent on each other, these intelligences seldom operate in isolation. Every normal individual possesses varying degrees of each of these intelligences, but the ways in which intelligences combine and blend are as varied as the faces and the personalities of individuals." - Howard Gardner

Multiple Intelligences

Howard Gardner theorized that there are multiple intelligences, and that we all use one or two for the most effective learning. Our culture teach, test, reinforce and reward primarily two kinds of intelligence: verbal/linguistic and logical/mathematical. His theory proposes that there are at least eight other kinds of intelligence that are equally important. They are "languages" that most people speak, and that cut through cultural, educational, and ability differences.

The mind is not comprised of a single representation or a single language of representations. Rather, we harbor numerous internal representations in our minds. Some scholars speak of "modules of mind," some of a "society of mind," in this case it is "multiple intelligences." They include

Verbal Linguistic intelligence (sensitive to the meaning and order of words as in a poet). Use activities that involve hearing, listening, impromptu or formal speaking, tongue twisters, humor, oral or silent reading, documentation, creative writing, spelling, journal, poetry.

Logical-mathematical intelligence (able to handle chains of reasoning and recognize patterns and orders as in a scientist). Use activities that involve abstract symbols/formulas, outlining, graphic organizers, numeric sequences, calculation, deciphering codes, problem solving.

Musical intelligence (sensitive to pitch, melody, rhythm, and tone as in a composer). Use activities that involve audio tape, music recitals, singing on key, whistling, humming, environmental sounds, percussion vibrations, rhythmic patterns, music composition, tonal patterns.

Spatial intelligence (perceive the world accurately and try to re-create or transform aspects of that world as in a sculptor or airplane pilot). Use activities that involve art, pictures, sculpture, drawings, doodling, mind mapping, patterns/designs, color schemes, active imagination, imagery, block building.

Bodily Kinesthetic intelligence (able to use the body skillfully and handle objects adroitly, as in an athlete or dancer). Use activities that involve role playing, physical gestures, drama, inventing, ball passing, sports games, physical exercise, body language, dancing.

Interpersonal intelligence (understand people and relationship as in a salesman or teacher). learners think by bouncing ideas off of each other (socializers who are people smart). Use activities that involve group projects, division of labor, sensing others' motives, receiving/giving feedback, collaboration skills.

Intrapersonal intelligence (possess access to one's emotional life as a means to understand oneself and others exhibited by individuals with accurate views of themselves). Use activities that involve emotional processing, silent reflection methods,

thinking strategies, concentration skills, higher order reasoning, "centering" practices, meta-cognitive techniques.

Naturalist (connected to the intricacies and subtleties in nature such as Charles Darwin and Meriwether Lewis of Lewis and Clark fame). Use activities that involve bringing the outdoors into the class, relating to the natural world, charting, mapping changes, observing wildlife, keeping journals or logs.

According to multiple intelligences theory, not only do all individuals possess numerous mental representations and intellectual languages, but individuals also differ from one another in the forms of these representations, their relative strengths, and the ways in which (and ease with which) these representations can be changed.

Putting the Styles Together

First, it should be noted that no single measurement of style ensures that a learner's needs will be met. It is perhaps more important to build an adaptable learning environment that presents the material in a variety of methods than try to determine each learners personal style. Likewise, recognizing your own style will help to ensure you do not unintentionally force one learning style upon the learners. The more styles you address, the easier the instruction will be received by the learners. This is because you will be striving to reach their needs, not yours. Also, material presented in a variety of methods keeps the learners interested and reinforces itself.

Learning styles come from three schools of thought: Perceptual Modality, Information Processing, and Personality Patterns (Conner & Hodgins, 2000).

Perceptual Modality are biologically-based reactions to the physical environment. It refers to the primary way our bodies take in information, such as auditory, visual, smell, kinesthetic, and tactile. Learning style:

VAK - Notice that this style does not really worry about the why of learning styles.

Information Processing distinguishes between the way we think, solve problems, and remember information. This may be thought of as the way our brain processes information. Learning style:

The first part of Kolb's Learning Style Inventory in which he describes the process of learning.

Personality Models are the way we interact with our surroundings. Each of us has a preferred, consistent, distinct way of perceiving, organizing, and retaining information. This is due to the way we were brought up (environment or nurture) and the genes (DNA or nature) within us. This may be thought of as the ego within us, or what makes us what we are. Learning styles:

The second part of Kolb's Learning Style Inventory in which he describes individual learning styles.
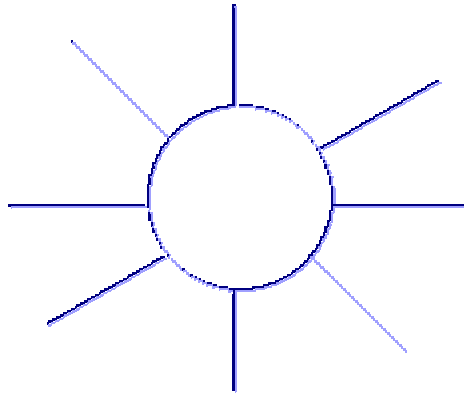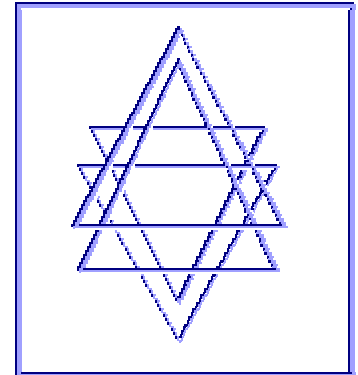
⦾
MBTI.

⦾
Howard Gardner's multiple intelligences.

All of these models can be thought of as a *Mandala* - a Sanskrit word for "magical circle." It is one of the oldest religious symbols and is found throughout the world. Although it is normally circular in appearance, it can take on a variety of forms.
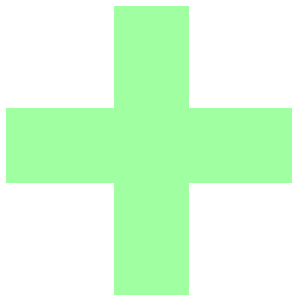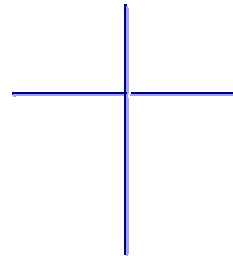
Yin and Yang

Sun Wheel

Sricakra of Tibet

Cross

Jung found the mandala symbol occurring spontaneously in the dreams and images of his patients. He thought of it as a symbol of wholeness that can aid us in integrating our personality. While several of the styles presented here are represented by various forms of crosses and circles, all the styles and models have one thing in common, they are an attempt to minimalize the complexity of an extremely multifaceted subject. It is only by slicing through behaviors one step at a time, such as how we learn through these simple models, will we ever have a chance of understanding our whole learning styles.

This is why these models do not fully explain how we learn and at the same time are both right and wrong. Learning is an extremely complex process. These models tend to simplify the process (which is a starting point in understanding a complex process). Also, each one tends to tackle something different in the learning environment by taking a

small slice out of it. It is only by looking at these various slices and others will we ever begin to understand the whole learning process.

ACTIVITY AND ASSIGNMENTS:

1. Write what do you understand by learning .

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   _____
   _____

2. Which learning styles as per you is the best.

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3. Define learning? Explain the principles of learning.

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4. List down in what styles do people learn.

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ALSO READ COLLECTION OF ARTICLES RELATING TO LEARNING