Learning Styles and Types of Learners

"A LEARNING STYLE IS THE WAY EACH LEARNER BEGINS TO CONCENTRATE ON, PROCESS, AND RETAIN <u>NEW</u> AND <u>DIFFICULT</u> INFORMATION."

Learning Styles

- Visual/Spatial: Learning through seeing
- Verbal/Linguistic: Learning through hearing
- Body/Kinesthetic: Learning through moving, doing, and touching

Learning Styles

- Logical/Mathematical: learning through numbers
- Musical/Rhythmic: Learning through music
- Interpersonal: Learning through others' emotions
- Intrapersonal: Learning through one's inner emotions

Gardner's Multiple Intelligences

- Gardner's theory was first espoused in his 1983 book, *Frames of Mind: The Theory of Multiple Intelligences.*
- Gardner believes "that the brain has evolved over millions of years to be responsive to different kinds of content in the world. Language content, musical content, spatial content, numerical content, etc. And all of us have computers that respond to those kinds of contents. But the strength or weakness of one computer doesn't particularly correlate with the other computer."

Types of learning

- *intuitive* this is the more or less automatic response to new information or activities
- *incidental* this is when a particular event happens, and it makes you think about what happened and why it happened
- *retrospective* this type of learning takes place when you systematically make a habit of thinking about activities and events and analyzing what you learnt from them
- *prospective* this is when you plan to learn before an experience and then review the learning experience afterwards

LEARNING CIRCLE



having an experience

Experimentation

trying it out

Evaluation

reviewing the experience





concluding from the experience

Visual/Spatial Intelligence

- Think in pictures and need to create vivid mental images to retain information
- Enjoy looking at maps, charts, pictures, videos, and movies
- Skills: puzzle building, reading, writing, understanding charts and graphs, a good sense of direction, sketching, painting, creating visual metaphors and analogies (perhaps through the visual arts), manipulating images, constructing, fixing, designing practical objects, and interpreting visual images

Verbal/Linguistic Intelligence

- Have highly developed auditory skills and are generally elegant speakers
- Think in words rather than pictures
- Skills: listening, speaking, writing, story telling, explaining, teaching, using humor, understanding the syntax and meaning of words, remembering information, arguing their point of view, and analyzing language usage

Logical/Mathematical Intelligence

- Think conceptually in logical and numerical patterns making connections between pieces of information
- Ask lots of questions and like to do experiments
- Skills: problem solving, classifying and categorizing information, working with abstract concepts to figure out the relationship of each to the other, handling long chains of reason to make logical progressions, doing controlled experiments, questioning and wondering about natural events, performing complex mathematical calculations, and working with geometric shapes

Body/Kinesthetic Intelligence

- Express themselves through movement
- Have good sense of balance and eye-hand coordination
- Remember and process information through interacting with the space around them
- Skills: physical coordination, athletic ability, hands on experimentation, using body language, crafts, acting, miming, using their hands to create or build, dancing, and expressing emotions through the body

Musical/Rhythmic Intelligence

- Think in sounds, rhythms, and patterns
- Immediately respond to music, either appreciating or criticizing what they hear
- Be extremely sensitive to environmental sounds
- Skills: singing, whistling, playing musical instruments, recognizing tonal patterns, composing music, remembering melodies, and understanding the structure and rhythm of music

Interpersonal Intelligence

- Try to see things from another person's point of view in order to understand how they think and feel
- Often have an uncanny ability to sense feelings, intentions, and motivations
- Be great organizers and generally try to maintain peace in group settings and encourage cooperation

Interpersonal Intelligence (con't)

 Use both verbal and non-verbal language to open communication channels with others

 Skills: seeing things from other perspectives, listening, using empathy, understanding other people's moods and feelings, counseling, cooperating with groups, building trust, resolving conflicts peacefully, and establishing positive relations with other people

Intrapersonal Intelligence

- Try to understand their inner feelings, their strengths and weaknesses, their dreams, and their relationships with others
- Skills: recognizing their own strengths and weaknesses, reflecting and analyzing themselves, being aware of their inner feelings, desires, and dreams, evaluating their thinking patterns, reasoning with themselves, and understanding their role in relationship to others

Techniques to use with the different learning styles

The more a student can learn through a combination of all the modalities—visual, auditory, and kinesthetic—the more permanent the learning will be.

Visual Learners

- 1. use graphics to reinforce learning
- 2. color code to organize notes and possessions
- 3. use color to highlight important points in text
- 4. take notes
- 5. illustrate ideas as a picture before writing them down
- 6. ask for written directions
- 7. use flow charts and diagrams for note taking
- 8. visualize spelling of words or facts to be memorized
- 9. study in a quiet place away from verbal disturbances

Verbal Learners

- 1. read aloud
- 2. recite information to learn
- 3. use tunes or rhymes as mnemonic devices
- 4. read aloud and tape test questions or directions
- 5. dictate to someone else and have that person write down the thoughts
- 6. use verbal analogies and storytelling to demonstrate their point

Kinesthetic Learners

- 1. make models, do lab work, or role play to physically experience learning
- 2. trace letters and words with a pen or the index finger when reading and studying
- 3. skim through reading material before reading it in detail.
- 4. annotate text and write questions while reading
- 5. translate information into diagrams or other visual study tools
- 6. recite a list of items by counting on fingers
- 7. memorize or drill while walking or dancing
- 8. listen to music while studying

Types of Learners

- Active/Reflective
- Sensing
- Intuitive
- Visual/Verbal
- Sequential/Global

A student's learning type may be defined in large part by the answers to five questions

- How does the student perceive information: through the senses or intuitively?
- Through which sensory channel is external information most effectively perceived: **visual** or **auditory**?
- With which organization of information is the student most comfortable: **inductive** or **deductive**?
- How does the student prefer to process information: actively or reflectively?
- How does the student progress toward understanding: sequentially or globally?

Active/ Reflective Learners

- Active learners tend to retain and understand information best by doing something active with it—discussing it, applying it, or explaining it to others.
- "Let's try it out and see how it works" is an active learner's phrase.
- Reflective learners prefer to think about information quietly first.
- "Let's think it through first" is the reflective learner's response.

Sensing Learners

- Sensing learners tend to like learning facts
- Sensors often like solving problems by well-established methods and dislike complications and surprises
- Sensors tend to be patient with details and good at memorizing facts and doing hands-on work
- Sensors tend to be more practical and careful than intuitors.

Intuitive Learners

- Intuitive learners often prefer discovering possibilities and relationships.
- Intuitors like innovation and dislike repetition.
- Intuitors may be better at grasping new concepts and are often more comfortable than sensors with abstractions and mathematical formulations.
- Intuitors tend to work faster and to be more innovative than sensors.

Visual/Verbal Learners

- Visual learners remember best what they see.
- Verbal learners get more out of words.
- Everybody learns more when information is presented both visually and verbally.

What do I do about all these styles and types of learners?

You do not need to memorize the different learning styles or fit learners into neat categories. Most of us fall into multiple categories. This information is presented to demonstrate that people learn in different ways, which will assist you in being sure that you present material in various ways to accommodate all learners. If something seems not to work, try a different style.

Sequential/ Global Learners

- Sequential learners tend to gain understanding in linear steps, following logical paths to find solutions.
- Global learners tend to learn in large chunks, absorbing material almost randomly without seeing connections and then suddenly "getting it."
- Global learners may be able to solve complex problems quickly or put things together in novel ways once they have grasped the big picture, but they may have difficulty explaining how they did it.