Learning Styles
One Piece of the Puzzle to Optimal Learning
LEARNING STYLES

WHY BOTHER?
Learning something in new and difficult in the way your brain prefers it

Saves you time.
The information becomes *personal knowledge* quicker.
Learning about learning styles reminds you of other options for making connections.
It is an **Important Piece** in Learning “How to Learn”
Learners need a sense of control over their learning.

When a learner *feels in control*, the cortex is fully *functional* and higher level meaningful learning is possible

- creativity, analysis, synthesis, planning, and problem solving

When a learner feels he is *not in control*, these parts of the brain *shut down* and the only learning possible is rote memorization or simple learning based on habit or instinct.

Caine and Caine (1991)
When students

are required to think critically. . .
know what questions to ask. . .
know strategies for processing information. . .
know the goal or objective of a lesson. . .
**know how they learn best** . . .

**Control shifts from instructor to LEARNER**
Remember Jensen's Equation for Optimal Learning

Meaning
(connecting experience, data and stimuli to form conclusions and create patterns that give our lives meaning)

Present Circumstances
(environment, feelings, people, context, goals, moods)

Personal History
(beliefs, experiences, values, knowledge)
We addressed these three with some memory principles

Meaning
  • Interest

Present Circumstances
  • Intent to Remember

History
  • Basic Background
The next three deal with learning style preferences

Input (5 senses)
- (visual, auditory, kinesthetic, olfactory, or gustatory)

Processing (learning preference)
- (states, left/right hemisphere, abstract or concrete)

Responses (7 intelligences)
- (verbal-linguistic, spatial, bodily kinesthetic, musical-rhythmic, mathematical-logical, intrapersonal, interpersonal)
On line  http://www.mtsu.edu/~chopper/jensen.html
Approaches To Learning Styles
Necessary for Optimal Learning

Sensory Modes  Input
Hemispheric Dominance  Process
Multiple Intelligence  Response
Begin to learn something **NEW** or **DIFFICULT** in your **Strength**.
Reinforce it in as many ways possible.
Sensory Modes

Input

Preference in Receiving Information
SENSORY MODES

AUDITORY
SENSORY MODES

VISUAL
SENSORY MODES

KINESTHETIC
Most of us use a combination of these three.
A fire breaks out in a room
Your IMMEDIATE, FIRST reaction

**Auditory**-- start yelling “Fire” or giving directions or screaming.

**Visual** -- quickly you size up the situation, looking for exits, others in need, etc.

**Kinesthetic**-- start running for the exits or grabbing others to help them out.

While you may do all 3, one will be an instinctual first reaction.

That's your sensory learning style.
We actually have five senses

We could include

Olfactory (smell)

and

Gustatory (taste)

• But visual, auditory and kinesthetic are used most for semantic memory
AUDITORY

Use their voices and their ears as the primary mode of learning. You remember what you hear and what you say yourself. You want to talk about something difficult. You love class discussion.

- listen carefully in class
- tape record--both classes and notes for review and practice tests
- discuss material with another student or instructor
Visual

Want to actually see the words written down, a picture of something being described, a time line to remember events in history, or the assignment written on the board. Probably you organize your materials. You appreciate being able to follow with an overhead transparency or handout. Review and study material by reading and organizing--maybe even recopying. Using mapping techniques And mental videos
Kinesthetic

Prefer and actually learn better when they touch and are physically involved in what they are studying. Act out a situation, do a project and in general be busy with your learning. You may take lots of notes and never re-read them!

- Make copious notes
- Use computer
- Use Label in Margin System
- Make flashcards
- Mapping
- Make summary sheets
- Take sample tests
- Pace/Dance/Cheer
- Make models
Begin to learn something NEW or DIFFICULT in your Strength.
Reinforce *it* in as many ways possible.
People Generally Remember

- 10% of what they read
- 20% of what they hear
- 30% of what they see
- 50% of what they hear and see
- 70% of what they say or write
- 90% of what they say as they do a thing
- 95% of what they teach

Levels of Abstraction

- Verbal receiving
- Visual receiving

DALE’S CONE OF EXPERIENCE 1969
Hemispheric Dominance

Processing Preference

Link to on-line inventory
One Brain-Two Sides

Right and Left Work Together for Most Activity
But, Process Information in Very Different Ways
Most People Have a Dominant Side
When Something is New, Difficult or Unfamiliar, we
Automatically Go to Dominant Side
No one Is Totally Left or Totally Right Brained
You Can and Must Develop Both Sides of the Brain
Most **ACADEMIC** information is geared to the **left side** of the brain.

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Left Brain

Linear

Right Brain

Holistic
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Amzanig huh?
Textbook Strategies
Right Brained Learners

To get WHOLE picture
• Survey first
• Read questions at end
• Read summary at end
• Finally read
**Left Brain**

- Linear
- Symbolic
- Sequential

**Right Brain**

- Holistic
- Concrete
- Random
Sequence/Animals

Lion
Turtle
Eagle
Donkey
Shark
Butterfly
Rabbit
Elephant
Cat
Particularly **SPELLING**

human mind does not read every letter by itself, but the word as a whole

**Despite this phenomena,**
**SEQUENCE IS NECESSARY!**
Left Brain

Logical

Verbal

Right Brain

Intuitive

Non-verbal
**Left Brain**

- Reality Based
- Temporal

**Right Brain**

- Fantasy Oriented
- Non-Temporal

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Left Brain

LINEAR
SYMBOLIC
SEQUENTIAL
LOGICAL
VERBAL
REALITY BASED
TEMPORAL

Right Brain

HOLISTIC
CONCRETE
RANDOM
INTUITIVE
NONVERBAL
FANTASY ORIENTED
NON-TEMPORAL
Let’s Use the
Right Side of the Brain
I LOVE PARIS IN THE SPRINGTIME