Left/Right Brain Dominance and its Role in Learning
The cerebral cortex is the part of the brain that houses rational functions.

It is divided into two hemispheres connected by a thick band of nerve fibers (the corpus callosum) which sends messages back and forth between the hemispheres.
Brain research confirms that both sides of the brain are involved in nearly every human activity.

However, according to the theory of left-brain or right-brain dominance, each side of the brain controls different types of thinking.
The Brain

- Research indicates:
  - the left side of the brain is the seat of language and processes in a logical and sequential order.
  - the right side is more visual and processes intuitively, holistically, and randomly.
- Most people seem to have a dominant side.
- A key word is that our dominance is a preference, not an absolute.
Brain Dominance and Learning

- When learning is new, difficult, or stressful we PREFER to learn in a certain way.

- And while nothing is entirely isolated on one side of the brain or the other, the characteristics commonly attributed to each side of the brain serve as an appropriate guide for ways of learning things more efficiently and ways of reinforcing learning.
According to the left-brain, right-brain dominance theory, the right side of the brain is best at expressive and creative tasks. Some of the abilities that are popularly associated with the right side of the brain include:

- Recognizing faces
- Expressing emotions
- Music
- Reading emotions
- Color
- Images
- Intuition
- Creativity
The left-side of the brain is considered to be adept at tasks that involve logic, language and analytical thinking. The left-brain is often described as being better at:

- Language
- Logic
- Critical thinking
- Numbers
- Reasoning
Take the Hemispheric Dominance Inventory

- [http://frank.mtsu.edu/~studskl/hd/learn.html](http://frank.mtsu.edu/~studskl/hd/learn.html)
Information processing styles that are characteristically used by your right or left brain.
Linear vs. Holistic Processing

Left Brain Preference
- Processes information in linear manner
- Part to whole
- Arranged in logical order
- Would benefit from know why you are doing something

Right Brain Preference
- Processes information holistically
- Whole to part
- Sees big picture first, not details
- Would benefit from reading prior to lecture
Left Brain Preference

- Processes in sequence—in order
- List maker
- Enjoy making master schedule and daily planning
- Probably a good speller
- Linear and sequential processing of math and in following directions

Right Brain Preference

- Random in nature
- Move from one task to another
- Color sensitive
- Would benefit from making lists, schedules and reading directions
Symbolic vs. Concrete Processing

Left Brain Preference
- No difficulty in processing symbols
- Tend to be comfortable with linguistic and mathematical endeavors
- Probably memorize vocabulary or formulas

Right Brain Preference
- Concrete
- See, feel or touch real objects
- Prefer to see words in context and how formulas work
- Create opportunities for hands-on activities such as drawing math problems on board
Logical vs. Intuitive Processing

Left Brain Preference
- Processes in a linear, sequential, logical manner
- Use information piece by piece to solve math problem
- When reading/listening look for pieces to draw logical conclusions
- Decisions based on logic or proof

Right Brain Preference
- Use intuition
- Get right answer to math problem, but not sure how you arrived at answer
- Start with answer and work backwards
- Pay attention to coherence and meaning
- Decisions based on feelings
Verbal vs. Non-verbal Processing

Left Brain Preference
- Little difficulty in expressing themselves in words

Right Brain Preference
- Knows what they mean but has difficulty finding the right words
- Need to back up everything visually
- Would benefit from taking extra time to write a paper and revising it several times before submission
Reality-Based vs. Fantasy-Oriented Processing

Left Brain Preference
- Deals with things in reality
- When affected by environment, just deal with it
- Want to know rules and follow them
- Knows consequences of turning assignments in late

Right Brain Preference
- Creative
- Tries to change environment
- May not know anything is wrong; constantly asking for feedback and reality checks
- Will remember anything tied to emotional involvement
In general the left and right hemispheres of your brain process information in different ways.

However, the learning process is enhanced when all of our senses are used. This includes using your less dominate hemisphere.
Questions????????
References

- Cherry, K. Left Brain vs. Right Brain: Understanding the myth and reality of Left Brain and Right Brain Dominance
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