

LADE/MADE Video Conference  
Learning Styles  
Carolyn Hopper

[chopper@mtsu.edu](mailto:chopper@mtsu.edu)

<http://www.mtsu.edu/~studskl>

The beginning of a new school year presents us with an opportunity to examine what goes on in our classrooms. Why are we here? What are the goals and objectives of the classes we teach? Hopefully somewhere amid the confusion of trying to get it all done, we remember that we are here so that students can learn. Content is important. However, students learning it is more important! I find that an examination of learning styles is helpful in determining ways I provide students with opportunities for learning. There are things that we can do in presenting materials, designing our courses, and making assignments. And there are things that we can remind our students to do when learning something new and difficult. The term *learning styles* is one that is *loaded*. It can mean many things to many people. This presentation will be limited to two approaches. We will quickly view **sensory modes** the way we intake information best: visual, auditory, or kinesthetic/tactile. Then, we will examine **hemispheric dominance**, the way we process that information. Are we right brained or left?

The goal of this presentation is not to teach you all there is to know about learning styles. Rather, it is intended to be a reminder that everyone processes information differently and to share a few insights. It is also important to remember that learning styles is only one piece of the puzzle of how we learn.

**You may find the following resources useful.**

- The PowerPoint slides used in this presentation as well as some on learning strategies can be accessed on the Internet at <http://www.mtsu.edu/~studskl/ppt2e.html>
- An on-line version for the hemispheric dominance inventory is available at <http://www.mtsu.edu/~devstud/advisor/learn.html>
- The Study Skills Help Page is the home base for the learning strategies course at MTSU. You may wish to refer you students to the page for help in study skills. <http://www.mtsu.edu/~studskl> (I and in Larry)
- Create online quizzes, games, reviews <http://www.quia.com/>
- Hopper, Carolyn . Practicing College Study Skills: Strategies for Success 2<sup>nd</sup> edition New York: Houghton Mifflin, 2001.

**Jenson's Equation for Optimal Learning**

**Personal History**

(beliefs, experiences, values, knowledge)

**+**

**Present Circumstances**

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

**+**

**Input (5 senses)**

(visual, auditory, kinesthetic, olfactory, or gustatory)

**+**

**Processing (learning preference)**

(states, left/right hemisphere, abstract or concrete)

**+**

**Meaning**

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

**+**

**Responses (7 intelligences)**

(verbal-linguistic, spatial, bodily kinesthetic, musical-rhythmic, mathematical-logical, intrapersonal, interpersonal)

**=**

**Optimal Learning**

Eric Jenson. *Super Teaching*. San Diego. The Brain Store, Inc., 1998

## Sensory Modality Inventory

There are eleven incomplete sentences and three choices for each. Some of those choices contain more than one option. If any one of those options seems typical of you, score that answer. All of the options do not have to apply to you. Score the three choices by rating:

- 3=                   to the answer most typical of you  
2=                   to your second choice  
1=                   to the one least like you

1.     When I want to learn something new, I usually:  
\_\_\_ A.             want someone to explain it to me.  
\_\_\_ B.             want to read about it in a book or magazine.  
\_\_\_ C.             want to try it out, take notes, or make a model of it.
  
2.     At a party, most of the time I like to :  
\_\_\_ A.             listen and talk to two or three people at once.  
\_\_\_ B.             see how everyone looks and watch the people  
\_\_\_ C.             dance, play games, or take part in some activities.
  
3.     If I were helping with a musical show, I would most likely:  
\_\_\_ A.             write the music, sing the songs or play the accompaniment  
\_\_\_ B.             design the costumes, paint the scenery, or work the lighting  
                      effects.  
\_\_\_ C.             make the costume, build the sets, or take an acting role
  
4.     When I am angry, my first reaction is to:  
\_\_\_ A.             tell people off, laugh, joke, or talk it over with someone  
\_\_\_ B.             blame myself or someone else, daydream about taking revenge,  
                      or keep it inside  
\_\_\_ C.             make a fist or tense my muscles, take it out on something else, hit  
                      or throw things.
  
5.     A happy event I would like to have is:  
\_\_\_ A.             hearing thunderous applause for my speech or music.  
\_\_\_ B.             photographing the prized picture for a sensational newspaper story.  
\_\_\_ C.             achieving the fame of being first in a physical activity such as dancing,  
                      acting, surfing, or a sports event.
  
6.     I prefer a teacher to: ( Or as a teacher as prefer)  
\_\_\_ A.             use the lecture methods with informative explanations and  
                      discussions.  
\_\_\_ B.             write on the chalkboard, use visual aids, and assigned readings  
\_\_\_ C.             require posters, models, in-service practice, and some activities  
                      in class.
  
7.     I know that I talk with:  
\_\_\_ A.             different tones of voice.  
\_\_\_ B.             my eyes and facial expressions.  
\_\_\_ C.             my hands and gestures.

8. If I had to remember an event so that I could record it later, I would choose to:
- A. tell it aloud to someone or hear an audio tape recording or song about it.
  - B. see pictures of it or read a description.
  - C. replay it in some practice rehearsal using movements such as dance, playacting or drill.
9. When I cook something new, I like to:
- A. have someone tell me the directions (a friend or TV show).
  - B. read the recipe and judge by how it looks
  - C. use many pots and dishes, stir often, and taste-test
10. In my free time, I like to:
- A. listen to the radio, talk on the telephone, or attend a musical event.
  - B. go to the movies, watch TV, or read a magazine or book
  - C. get some exercise, go for a walk, play games, or make things.
11. If I am using equipment such as a VCR, camcorder, or computer for the first time.
- A. I want someone to tell me how to use it.
  - B. I want to read the directions or watch someone else do it.
  - C. I want to jump right in and do it. I'll figure it out sooner or later
12. I like the classroom arranged
- A. In a circle so I can interact with other students
  - B. In neat rows facing the instructor
  - C. In random order in case we have activities

*To interpret your sense modality, add up your score for each letter.*

Total number

- A. \_\_\_\_\_ auditory
- B. \_\_\_\_\_ visual
- C. \_\_\_\_\_ kinesthetic or tactile

If your highest score was

- A. you learn best through listening
- B. you learn best by seeing it in print or other visual modes
- C. you learn best by getting physically involved

**Visualization Exercise**

*Follow directions carefully. Learn the following pairs of words by repeating the members of each pair several times to yourself. For example, if the pair is CAT-WINDOW, say over and over, "cat-window," "cat-window." Do not use any other memory method.*

<b>CUSTARD</b>	<b>LUMBER</b>	<b>MOTHER</b>	<b>IVY</b>
<b>JAIL</b>	<b>CLOWN</b>	<b>LIZARD</b>	<b>PAPER</b>
<b>HAMMER</b>	<b>STAR</b>	<b>BEAR</b>	<b>SCISSORS</b>
<b>APPLE</b>	<b>FRECKLES</b>	<b>CANDY</b>	<b>MOUNTAIN</b>
<b>SLIPPER</b>	<b>ENVELOPE</b>	<b>BOOK</b>	<b>PAINT</b>
<b>CANDLE</b>	<b>SHEEPSKIN</b>	<b>TREE</b>	<b>OCEAN</b>

*Now without looking back, try to remember as many of the pairs of words as you can.*

ENVELOPE	_____	JAIL	_____
FRECKLES	_____	IVY	_____
TREE	_____	CANDLE	_____
CANDY	_____	BOOK	_____
SCISSORS	_____	LIZARD	_____
CUSTARD	_____	HAMMER	_____

*Now learn the following pairs by visualizing a mental picture in which the two objects in each pair are in some kind of vivid interaction. For example, if the pair is CAT-WINDOW, you might picture a cat jumping through a closed window with glass shattering all about. Just make up a picture and do not use any other memory technique. The more action your picture holds, the easier it will be to recall.*

SOAP	MERMAID	MIRROR	RABBIT
LAKE	FOOTBALL	HOUSE	DIAMOND
PENCIL	LETTUCE	LAMB	MOON
CAR	HONEY	BREAD	GLASS
CANDLE	DANCER	LIPS	DONKEY
FLEA	DANDELION	DOLLAR	ELEPHANT

*Now turn to the next page . . . no looking back . . . and try to remember as many pairs as you can.*

CANDLE \_\_\_\_\_

DOLLAR \_\_\_\_\_

FLEA \_\_\_\_\_

CAR \_\_\_\_\_

BREAD \_\_\_\_\_

LIPS \_\_\_\_\_

MIRROR \_\_\_\_\_

PENCIL \_\_\_\_\_

LAMB \_\_\_\_\_

SOAP \_\_\_\_\_

LAKE \_\_\_\_\_

HOUSE \_\_\_\_\_

# Learning Styles

## How Does Your Brain Process Information?

### Questionnaire\*

\*Adapted with permission from "Learning Style Preferences" by Adele Ducharme and Luck Watford, Valdosta State University.

Directions: Check the answer that most closely describes your preferences.

1. When you walk into a theater, classroom, auditorium, if there are no other influential factors, which side do you prefer?  
\_\_\_ a. right  
\_\_\_ b. left
2. When taking a test, which do you prefer that the questions be?  
\_\_\_ a. objective (true/false, multiple choice, matching)  
\_\_\_ b. subjective (discussion or essay questions)
3. Do you often have hunches?  
\_\_\_ a. yes  
\_\_\_ b. no
4. When you have hunches, do you follow them?  
\_\_\_ a. yes  
\_\_\_ b. no
5. Do you have a place for everything and everything in a place?  
\_\_\_ a. yes  
\_\_\_ b. no
6. In learning a dance step, is it easier for you to:  
\_\_\_ a. learn by imitation and getting the feel of the music?  
\_\_\_ b. learn the sequence of movements and talk your way through the steps?
7. Do you like to move your furniture several times a year, or do you prefer to keep the same arrangement?  
\_\_\_ a. keep  
\_\_\_ b. move
8. Can you tell approximately how much time has passed without a watch?  
\_\_\_ a. yes  
\_\_\_ b. no
9. Speaking in strictly relative terms, is it easier for you to understand:  
\_\_\_ a. algebra?  
\_\_\_ b. geometry?

10. Is it easier for you to remember people's names or to remember people's faces?  
\_\_\_ a. names  
\_\_\_ b. faces
11. When given the topic "school," would you prefer to express your feelings through drawings or writing?  
\_\_\_ a. drawing  
\_\_\_ b. writing
12. When someone is talking to you, do you respond to the word meaning, or do you respond to the person's word pitch and feelings?  
\_\_\_ a. word meaning (what is said)  
\_\_\_ b. word pitch and feeling (how it is said)
13. When speaking, do you use few gestures, or do you use many gestures (that is do you use your hands when you talk)?  
\_\_\_ a. few gestures (very seldom use hands when you talk)  
\_\_\_ b. many gestures (use hands)
14. My desk or where I work is  
\_\_\_ a. neat and organized  
\_\_\_ b. cluttered with stuff that I might need
15. Is it easier for you to read for main ideas or read for specific details?  
\_\_\_ a. main ideas  
\_\_\_ b. specific details
16. Do you do your best thinking lying down or walking around or sitting erect?  
\_\_\_ a. sitting erect  
\_\_\_ b. lying down or walking around
17. Do you feel more comfortable saying/doing humorous things or saying/doing well reasoned things?  
\_\_\_ a. humorous things  
\_\_\_ b. well reasoned
18. In math  
\_\_\_ a. I can explain how I got the answer  
\_\_\_ b. I can get the answer but cannot explain how



19. Which format do you like better?

\_\_\_\_\_ a.

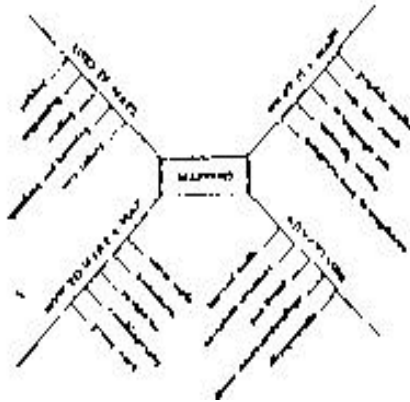
\_\_\_\_\_ b.

Outdoor Recreation

- I. Winter sports  
 1. curling  
 2. skiing  
 3. bobsledding  
 4. ice hockey

- II. Individual sports  
 1. jogging  
 2. long distance running  
 3. tennis

- III. Team sports  
 1. football  
 2. softball  
 3. soccer  
 4. baseball



20. Sit in a relaxed position and clasp your hands comfortably in your lap. Which thumb is on top?

- \_\_\_\_\_ a. left  
 \_\_\_\_\_ b. right  
 \_\_\_\_\_ c. parallel

21. When it comes to “bending the rules” do you feel:

- \_\_\_\_\_ a. rules are to be broken  
 \_\_\_\_\_ b. rules are to be followed  
 \_\_\_\_\_ c. progress comes through challenging rules when necessary (both sides)

22. What does your work are look like?

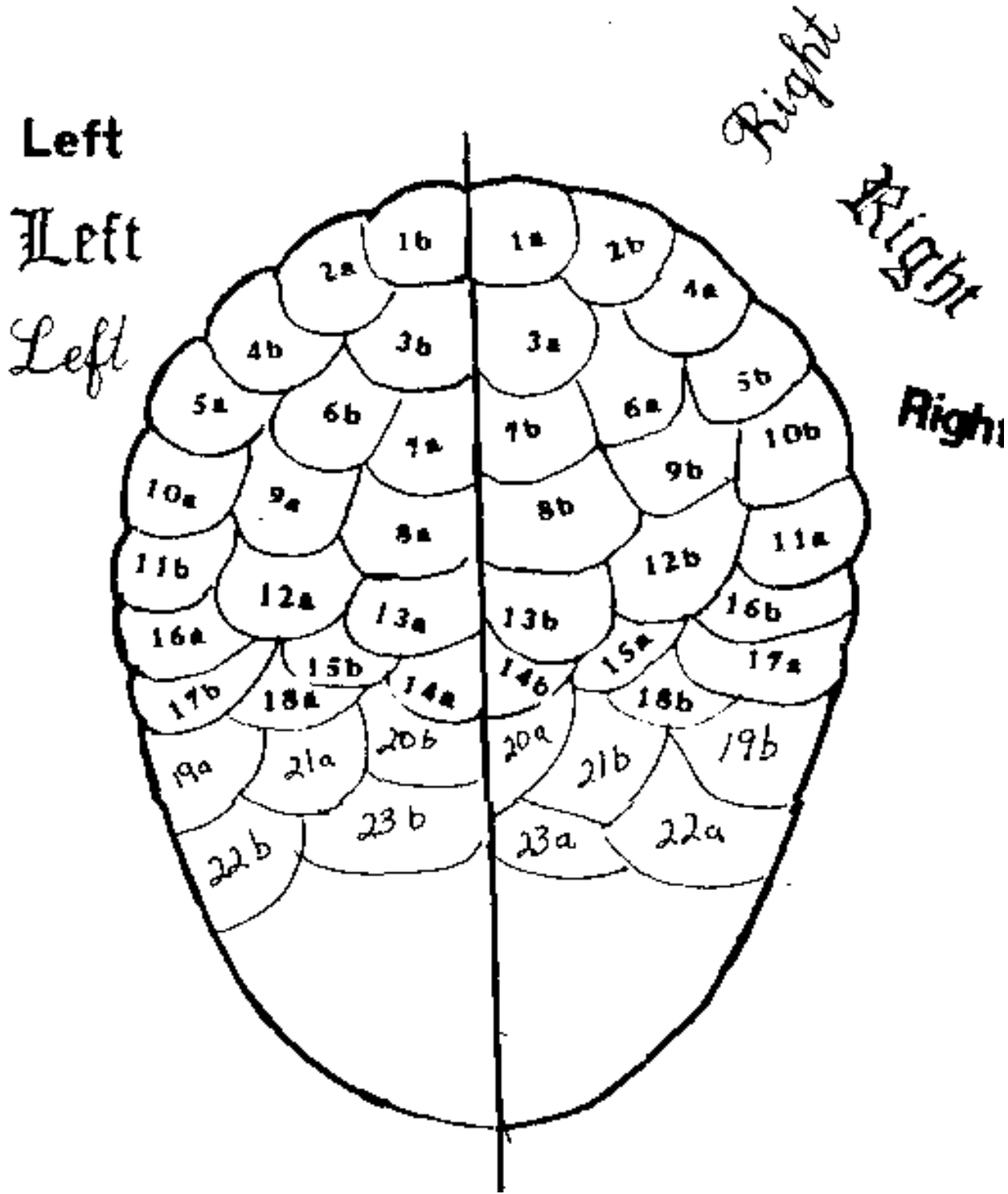
\_\_\_\_\_ a.

\_\_\_\_\_ b.



Directions For scoring Left Brain/Right Brian Preference

Using the diagram of the brain on the next page, color in the section that corresponds to your answer. For example, if your answer for question 1 is “a”, you will find 1a on the right side of the brain. Color in this section. *If your answer is “c” or you really can’t distinguish between a and b color both a and b for that question.*



## LEFT

### **Linear**

part to whole-piece by piece--  
-lines them up arranges in  
logical order and draws  
conclusion-- one thing built  
on another

### **Symbolic**

has no trouble with symbols--  
remember word are symbols  
as are letters--

## RIGHT

### **Holistic**

whole to part--holistically--  
starts with the answer sees  
the big picture not details--  
often has difficulty with  
sequential thought

### **Concrete**

wants things concrete-- let  
me touch it see the real  
object. May have had trouble  
learning to read with  
phonics--  
real money , apples to figure  
out problem in math Needs  
to know why??

## SOME SUGGESTIONS

lecture drives right brained  
crazy--usually it's piece by  
piece--this is why reading  
material ahead is necessary  
and why surveying is a must  
before reading a text and  
taking tests

right dislike objective test--  
they should make up  
practice tests to study for  
tests

math-- in order to keep  
columns , may need to turn  
paper sideways and write  
numbers between lines to  
keep in line

**Instructors** need to make  
sure they give overview  
before class-- goals and  
objectives need to be clearly  
stated to students--  
left brain needs closure  
Check often to see if learning  
is taking place--

create opportunities for hand-on  
activities-- use real as often as  
possible -- draw out pictures  
instead of words(mapping)  
draw out math problem -note  
use in real world--use  
manipulatives

**Instructors** need to use as  
many concrete examples and  
hands on activities as possible  
Search out interactive web  
sites

## Sequential

makes lists and checks off when done -- goes in order actually read direction-- part a to part b-- organized --every thing in order- a place for everything outlines in order to plan a paper or project

## Random

flits from one task to another-- may get more done, but not necessarily the things that should be done spontaneous--thrive on change--open-minded and flexible doesn't read directions-- with rules , usually doesn't follow( easier to get forgiveness than permission) outlines *after* paper is written if an outline is required

The "world" thinks that everything is sequential--may not ever be for right brain.

To learn something in sequence try using color--even to the extent of spelling, a different color for each letter(right brain sensitive to color) In test taking, survey for the big picture and do the easy questions first. In doing sequential task try standing up -- moving around.

It is a must for right brained people to make list and prioritize. **Instructors** should vary pace and method of presentation. May help by having major project turned in parts.

## Logical

piece by piece in solving a math problem or any problem- - come to a logical conclusion- -want rule to follow-- make decisions based on proof not feelings

## Intuitive

may know the right answer, but not be able to explain how you got it--decisions based on feeling emotional and sensitive to feelings

right brain-- knows the Label in the Margin system works, but trouble explaining why ( really doesn't care why it works!)--knows answer to math problem doesn't know why- sequence? )- try working a problem backwards or subbing smaller numbers-- drawing it out- -true/false mc intuit right answer--often misses logic of tricky question

Needs to study test taking strategies-- proof reading out loud-- it sounds right!

**Instructors:** be aware that student may need more than one explanation-- just because it's logical to you --a right brained might not follow your logic-- student may need to start with the answer and go backward. Right brain students take everything you say(or don't say) *personally*

## Verbal

words are processed on the left side of the brain--usually not much trouble expressing themselves--good vocabulary- directions verbally” turn right at Market St.-- go three blocks, turn east on Beacon St. . . “

usually think before they talk

## Non-Verbal

images, perception, color, etc. are seated in the right side of the brain.

may know what they mean, but have trouble finding the right words.

will use landmarks for direction or even draw a map  
oddly enough-talk to think--no filter between brain and mouth

again-- drawing out ideas-- concept mapping-- making mental videos of everything! when you know (or suspect you know) what a discussion question will be on a test, practice writing it ahead-- allowing extra time for writing assignments. When a question is asked in class, repeat the questions to make sure you have it right and to give you time to think.

**Instructors:** Is everything you present visually backed up? Right brained are not auditory learners no matter how hard they try. Allow ample time to formulate an answer to a question asked in class.

## Reality-Based

deal with things the way they are-- effected by the environment will adjust to it

if failed 2 tests have gotten no homework--know they can't make an A in that class

if syllabus says two absences, these students know that's what it means

## Fantasy-Oriented

will try to change the environment-- tend to deal in fantasy, imagery and imagination

if have failed tests etc.--still think that they can get an A

two absence policy, and other class policies were made for others--surely can't apply to me!

Make use of fantasy-- When learning digestive system become a piece of food. Make up mnemonics that are fanciful  
However, get constant feedback from instructors-- pair up with someone in the class

**Instructors:** have a reality check in place daily--such as assignment sheet that students must keep up with showing what was turned in and points earned--or notebook check--be very clear in how grade determined-- when test returned give some indication of grade to date  
Right brained students are sure the rules don't apply to them.

## Temporal

sense of time--punctual--  
could pretty well tell time  
without a watch

## Non-temporal

10 minutes may as well be  
"in a few days" timed test  
difficult  
tardy!#\*

Right Brained --Set watch  
ahead 10 minutes.  
When taking test plan how  
much time you will need to  
give each section.  
Avoid class with timed tests .  
Practice tests before you  
take them,  
**Instructors:** avoid giving  
timed test if possible. Give  
right brained students help in  
budgeting and managing  
time on tests. (Giving a quiz  
the first part of class tends to  
give a wake up call and adds  
importance to being on time.)  
Test often--hold students  
responsible for what just  
went on in class

### **Some Generalities About Left And Right Brain Personalities.**

**Right:** Right brained people are spontaneous. They fly by the seat of the pants. They usually have a short attention span and thrive on change. They are open-minded and flexible and extremely gullible. They are non-conformists and find it easier to get forgiveness than asking permission to do something in the first place. They are not punctual. Further they are not confrontists. They want to be liked and avoid conflict. They talk to think. There seems to be no filter between the brain and mouth. They are very creative, but have trouble following through. They use scattered thinking --random. They will do an excellent job on the major part of a job, but have trouble tying thing up. Details often get overlooked. You can tell a right-brained housekeeper by the perpetual state of laundry or the gaping hole left by open drawers or doors when they go through a room. The right-brained person wants their personal stuff with them in the office-- this often overflows into other area.

You can do as much as your left-brain counterpart (maybe more), but prefer to do it in your own unique way. With a little savoir-faire. Despite the negative bias against right-brainers as unproductive, undisciplined dreamers, you can get things done and have

fun, too. As a right-brainer, you are unique. You may also be unpredictable, impatient, sloppy and off-beat. You may loathe routines, lack follow-through, abhor structure and rules, take a wait-and-see approach more often than not, juggle several tasks at once and deal well with change, whether you want to or not. Organizing comes naturally to you, but not organizing that anybody else might recognize as such. You want to have fun, are freewheeling rather than focused, a daydreamer, your train of thought tends to wane and wander, you're oblivious to time. You learn with visual clues, are impulsive, a risk-taker. Being non-linear, you find lists a little confining, and tidiness a waste of time. You're independent, artistic, tend to ramble from topic to topic, speak with feeling, are easily distracted, lose things easily and frequently, can see the big picture but have trouble with individual steps, are indecisive, easygoing and all-too flexible. Dramatic and animated, you're a flirt, drive too fast, often speak without thinking, think well on your feet and, did I mention, you are wonderful!

**Left :** With the left brain person, organization is not an whim. They *need* their desk, home etc. in order. They need to know the rules. Most often sees things as either or not shades of gray. They need proof. Their decisions are based on facts, not how they feel. They are intense, serious and their communication is straight to the point with little or no elaboration. They think before they talk. They are usually dogmatic and not really concerned about popularity. They are not very sensitive to other's feelings and seldom express their own feelings. They are planners and love detail. If you want a job done, ask a left brainer. They need sequence and will meticulously follow directions. They are consistent, focused, and conscientious. They are not risk takers. They want to know what to expect. They are usually private people. I often wonder if the left brain wasn't designed just to keep right brain in line. Because it can act like an overbearing parent at times. The voice of reason. It sets the rules (and tries to make the right side adhere to them). It is logical, neat and orderly, a built-in editor and critic. It's quite maddening, really. But we need this serious, buttoned-down side to take care of all the things the right brain simply doesn't deal with -- and among those things is time management. The left brain can be a little compulsive about it, though. It will want to do the same thing the

same way every time. It drives you toward consistency, toward timeliness, toward productiveness.

"Chop, chop!" it will say. "In a minute!" the right will say. It's up to you to keep them from fighting. People who are left-brain dominant are often good at researching and retaining information, fact gathering, math, tidiness and written instructions. They may be willing to work long hours, but consider work and play two separate things. They are responsible, good at organizing, obsessive, compulsive, dislike change, are easily overloaded, a little on the dull side, into conformity, controlling, very judgmental, and insensitive at times. Strong finishers, focused, perfectionists, detail-oriented, goal-oriented, list makers, orderly and stable, good with scheduling, punctual, welcome repetition and routine, hate interruptions, are decisive, uptight, fearful and cautious. And we need them to keep things running smoothly, to read the manuals and fix what we broke

**Whole Brain** You should have recognized some of yourself in the descriptions of both right and left-brainers. There's a lot of overlap in function, and the balance between can vary at different times during your life. You're the balance we all try to eventually achieve.