## **Brain-Based Research**

Most individuals have a distinct preference for one of these styles of thinking. Some, however, are more whole-brained and equally adept at both modes. In general, *schools tend to favor left-brain modes of thinking, while downplaying the right-brain ones*. Left-brain scholastic subjects focus on logical thinking, analysis, and accuracy. Right-brained subjects, on the other hand, focus on aesthetics, feeling, and creativity.

## How Right-Brain vs. Left-Brain Thinking Impacts Learning

<u>Curriculum</u>-In order to be more "whole-brained" in their orientation, schools need to give equal weight to the arts, creativity, and the skills of imagination and synthesis.

<u>Instruction</u>—To foster a more whole-brained scholastic experience, teachers should use instruction techniques that connect with both sides of the brain. They can increase their classroom's right-brain learning activities by incorporating more patterning, metaphors, analogies, role playing, visuals, and movement into their reading, calculation, and analytical activities.

<u>Assessment</u>-For a more accurate whole-brained evaluation of student learning, educators must develop new forms of assessment that honor right-brained talents and skills.

Maybe in a perfect world, right-brained teachers would be paired with right-brained students and so forth, but in today's academia, that may seem like mere wishful thinking. It is true, however, that the educational system needs attention in more ways than one. Those students who are more right-brain dominant are not receiving adequate teaching in the classroom. However, if teachers strive to reach every student, the playing field can become more leveled.

The idea of left-brain vs. right-brain continues to be a controversial subject in the scientific and academic world. No one person is completely left-brained or right-brained, but many tend to have a dominant side, and as both teachers and students uncover the complexities of brain function, learning may become easier.

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## **Left Brain Teaching Techniques**

Let's say, for example, that you are introducing a unit on the solar system. Here are some left-brain teaching techniques that will help strong to moderate left-brain students feel engaged during your lesson:

- Write an outline of the lesson on the board. Students with left-brain strengths appreciate sequence.
- Go ahead and lecture! These students love to listen to an expert and take notes.
- Discuss vocabulary words and create a crossword puzzle on the Solar System.
- Discuss the big concepts involved in the creation of the universe, how the solar system was formed, and so on. Left-brain students love to think about and discuss abstract concepts.
- Assign individual assignments so students may work alone.
- Ask the students to write a research paper on the solar system that includes both detail and conceptual analysis.
- Keep the room relatively quiet and orderly. Many students with left-brain strengths prefer not to hear other conversations when working on a stimulating project.

## **Right Brain Teaching Techniques**

Taking the solar system example, here are some right-brain teaching techniques that will help students with moderate to strong right-brain strengths get the most out of your lesson:

- During the lecture, either write the main points on the board or pass out a study guide outline that students can fill in as you present orally. These visual clues will help students focus even though you are lecturing.
- Use the overhead, the white board, or the chalkboard frequently. Since the students are apt to miss the points discussed verbally, the visual pointers will help the students "see" and comprehend the points.
- Have some time for group activities during the week of the solar system study. Right-brain students enjoy the company of others.
- Let the students create a project (such as a poster, a mobile, a diorama, or paper mache planets
  of the solar system) in lieu of writing a paper. Right-brained students often have excellent eyehand coordination.
- Play music, such as the theme from 2001: A Space Odyssey. Discuss how space might feel to an astronaut. Students with right-brain strengths are intuitive and like to get in touch with their feelings during the day.

•	Bring in charts and maps of the universe and let the students find the Milky Way. Maps and graphs make use of the students' strong right-brain visual-spatial skills.