

OPTIONS CENTER EDUCATION TOPIC



PACE Part II: Brain Buttons

The following is the **second** in a series of articles about getting ready to learn through a process called PACE. To check for PACE, notice the four elements important to whole brain learning: a **Positive** attitude, **Active** participation, **Clear** focus of attention and an **Energizing** motivation or goal.

Have you ever nodded off in a boring lecture? Reversed letters when reading or writing? Been at a loss for words? Had your brain simply feel "numb?" Lost your train of thought midway through a sentence or task? Felt like you were working harder at a mental task than it required?

Brain Buttons [Brain Gym® Teacher's Edition Revised, p. 25] can be the answer to mental fatigue, as they "switch on" and integrate the halves of the brain so that thinking is clearer and easier.

Brain Buttons are the second part of getting "in PACE" for learning. Brain Buttons are actually acupressure points, located just below the collar bone and on either side of the sternum. With one hand on your navel, use the thumb and first finger of the other hand to rub these points for 20 to 30 seconds. Change hands to activate both polarities. Doing this releases visual and hemispheric stress and supports clarity of intention and directional body awareness. They also stimulate energy flow from one side of the body to the other. The brain buttons may be tender at first, but over a few days to a week, the tenderness subsides. Then, even holding the points will activate them. Often one will feel pulsing in the fingertips when very lightly holding the points.

Activating the Brain Buttons helps with both behavior and posture, enhances the overall energy level, allows the eyes to work together, increases overall relaxation, and relaxes the muscles in the back of the neck.

Brain Button activation prepares students for reading effectively. It helps in "keeping place" while reading, aids in the task of consonant blending in recognizing words, eliminates letter reversals, and prepares for crossing the visual midline when reading.

Related skills enhanced by Brain Button activation include writing, typing, computer work, and even constructive television watching.

Brain Buttons can be activated discreetly at school or work, or whenever mental fatigue arises, by simply placing one's hand just below the collarbones.

Sue Maes uses an EEG [Electro Encephalograph] machine called ND 2000 which uses the Penniston protocol. Combined with a computer it is able to monitor the changes in the brain waves as her students/clients do Brain Gym® exercises. The person has electrodes hooked up to their head. A grounding wire is used to prevent shock. The information goes into a black box that converts the raw signals into easily read graphs.

With EEG-biofeedback, the electricity is measured speeding from one cell to the next in hertz-speed [cycles per second] and in micro volts, which is how many cells are involved in the task.

The following graphs have been produced by Sue's machine as two people drank water. This is an explanation of Sue's for the graphs. Each new section starting in the center and working out to the periphery measures two second intervals of EEG activity. The different colors refer to the different kinds of brain wayes.

According to Sue, "The top two box graphs represent two people before they did Brain Buttons. Each line moving out from the center is a two-second interval. In the top two graphs there is a lot of theta/yellow which is for inward focus, subconscious thinking -- the time we generally are in right before or after a deep sleep. Most children with ADD have a lot of Theta, meaning that they are walking, working, reading, eating and playing in the same brain waves that you have just before you wake up and fall asleep. Imagine a teacher telling these students to pay attention when their brain isn't fully awake at all. ADD students need to have Theta inhibited and Beta enhanced. This can be done with Brain Gym® exercises. It trains the brain."

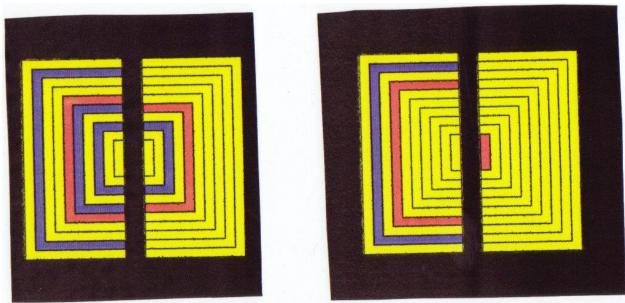
For more information on brain waves, see the chart at the end of the newsletter.

The bottom two graphs are after they did Brain Buttons. The one on the left, Person A, shows more purple/beta which is for focus, concentration, and the ability to stay with the task.

BEFORE DOING BRAIN BUTTONS

PERSON A

PERSON B



©SUE MAES-THYRET

RIGHT BRAIN LEFT BRAIN

RIGHT BRAIN

LEFT BRAIN



©SUE MAES-THYRET

RIGHT BRAIN LEFT BRAIN

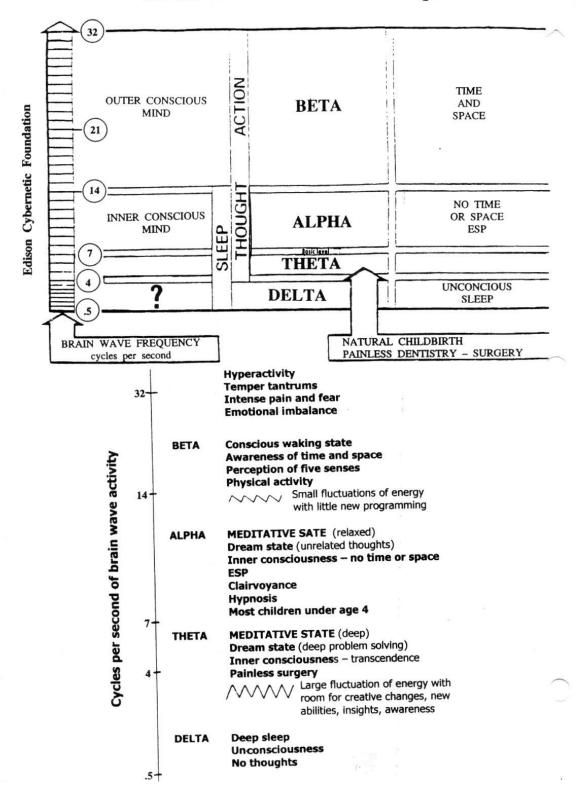
RIGHT BRAIN LEFT BRAIN

The one on the right, Person B, got more SMR Beta [green] which is for peak performance, peak thinking. SMR Beta is a mind-body unity. According to Sue, "It's grounding and very calming. It gives a real sharp focus of attention. It's optimum energy output and arousal. It's only present on the sensory-motor strip of the brain and can only be produced in the absence of movement. It's when your brain can think clearly. SMR-Beta is the thinking part before the action -- again, it doesn't occur when a person is moving."

In summary, P.A.C.E. is an acronym for the five movements that prepare us for new learning -- to become Positive, Active, Clear, and Energized.

Again, PACE is PREPARATION FOR LEARNING!

CHART OF BRAIN WAVE FREQUENCY



SOURCE: Hannaford, Carla. The Physiological Basis of Learning and Kinesiology course manual. 2003. Page 8

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Options Center for Health and Education, Inc.
4316 N. Prospect Road
Peoria Heights, IL 61616
(309) 685-7721 • email: options@mtco.com
www.options-center.com