

OPTIONS CENTER EDUCATION HANDBOOK

Part 3 of 4: Brain and Brain Gym®

The BRAIN and LEARNING

There are 3 aspects of education and learning that one can consider.

1. The first is the setting or where the learning is taking place. Examples might include at home vs. Grandma's or at school vs. the zoo.



2. The second is the content, or what information the students are expected and encouraged to learn. Examples here might include writing your name, reading their first word or learning to speak a foreign language.



3. The third, and to us at Options, the most important, is the **PROCESS**, or how a student learns.

A student can process information in primarily three ways by taking it in through the eyes, ears, and hands. Some students are pre-dominantly visual, auditory, or kinesthetic learners and this affects their performance in school.

If a student knows how to learn, s/he can then more easily acquire and process specific information which allows the student to adopt new thought patterns and to fine-tune his/her brain for maximum performance.



Source: Milliren, Al. (Summer, 1992). *Enabled Learner*. Charleston, South Carolina: Learning Associates.

The BRAIN and Its Major CENTERS

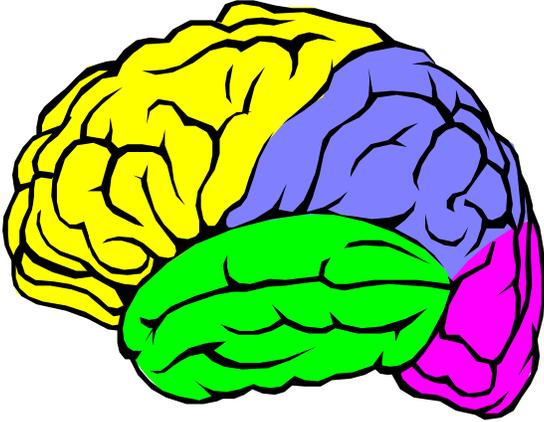
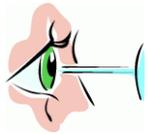


FIGURE 1

In **Figure 1**:



The visual center of the brain is located in the back, or occipital lobe of the brain (colored purple).

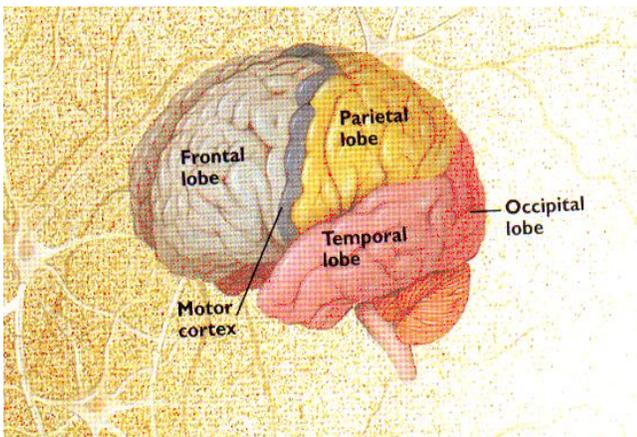


The auditory center of the brain is located in the temporal lobe or side of the brain (colored green).



The kinesthetic or motor area of the brain is located in the frontal and parietal lobes of the brain (on the border of the yellow and blue areas).

OPTIONS' programs address the centers involved with vision, hearing and movement.



To learn best, a student also needs to process information by using the higher brain centers located in the neo cortex in their cerebrum on top of their brain (*colored gray, yellow and pink in figure 2*). The neo cortex is where our reasoning and logical thinking take place. When a person is under stress or overwhelmed, s/he operates from the brain stem or lower brain survival centers and gets hyperactive, spaced out, or acts out in a negative way (*colored red striped at bottom in figure 2*).

FIGURE 2

BRAIN GYM® EXERCISES



One of the many successful programs applied at Options Center is **Brain Gym®**, which is a series of exercises that help students integrate all parts of their brain. Brain Gym® is a highly successful program designed to counter-act poor learning skills and to retrain a student as to how they can use very simple techniques to learn and comprehend better. An added benefit of Brain Gym® is that it improves attitudes and behavior by releasing stress and allowing the student to realize his/her full potential.

Brain Gym® uses mild calisthenics and exercise techniques to help stimulate areas of the brain to work together. Brain Gym® exercises are divided into categories based on the parts of the brain they stimulate and for what learning activity the student is getting ready.

- ✚ The **lengthening** exercises stimulate the front/back of the brain and help with comprehension and focusing.
- ✚ The **mid-line movements** stimulate the right/left hemispheres and help with speech/communication, reading and writing.
- ✚ The **deepening attitudes** and **energy exercises** stimulate the top/bottom of the brain and help with concentration, being relaxed and confident.



LENGTHENING EXERCISES

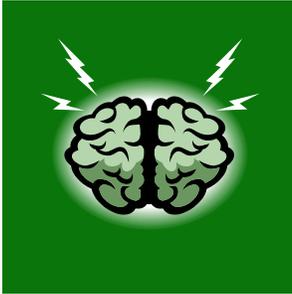
The lengthening exercises stimulate the **front and back sides** of the brain which, when integrated, improve **comprehension**. These stretching exercises activate the visual, auditory, and kinesthetic centers all at the same time.

Example: The Gravity Glider



PROCEDURE:

Sit comfortably. Cross your ankles. Keep your knees relaxed. Bend forward and reach out in front of you, letting your arms glide down as you exhale and up as you inhale. Repeat to the left and center. Change legs and repeat.



MID-LINE MOVEMENTS

You are probably familiar with definitions of left brain/right brain characteristics; the left brain (which controls the right side of the body) has a pattern of thinking that is positive, analytical, linear, explicit, sequential, verbal, rational, goal-oriented; the right brain (which controls the left side of the body) is more emotional, intuitive, spontaneous, holistic, nonverbal, visual, artistic, playful, symbolic. (You realize, of course, we do not have TWO brains. This popular terminology refers to the two hemispheres of our ONE brain.)

Example: Cross Crawl

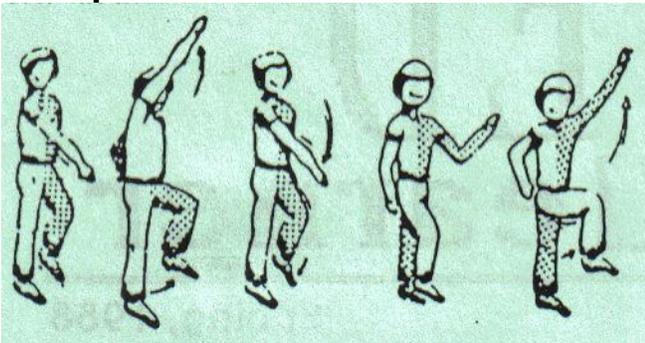


Figure 3

Source: Milliren, Al. (Spring, 1988). *Enabled Learner*. Charleston, South Carolina: Learning Associates.

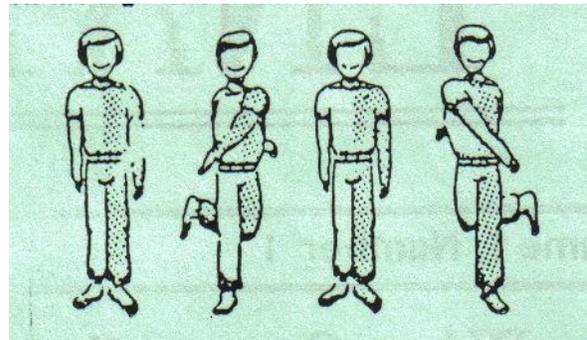


Figure 4

PROCEDURES:

- *Marching* – Alternate raising the opposite arm and leg (see above, Figure 3)
- *Scissors* – Alternate swinging the opposite arm and leg across the midline of the body (see above, Figure 4)
- *Hand to Knee* – Alternate touching the hand to the opposite knee

When a student does a Cross Crawl, the muscles throughout the nervous system stimulate not only the right and left hemispheres, but also the front lobe and the parietal lobes of the neo cortex. Thus, the student is able to integrate the **right and left sides** of the brain and help with **communication**. Integrating the right and left sides of the brain are important because each side deals with different aspects of learning.

Review:

- **Left:** The left hemisphere sees information as parts of a whole. The left hemisphere is considered the analytical or logical half of the brain that is associated with language, writing, science, and math.
- **Right:** The right hemisphere is the gestalt brain and sees the whole picture; it is the intuitive, visual, emotional part of the brain that is most commonly associated with art, music, and dance.



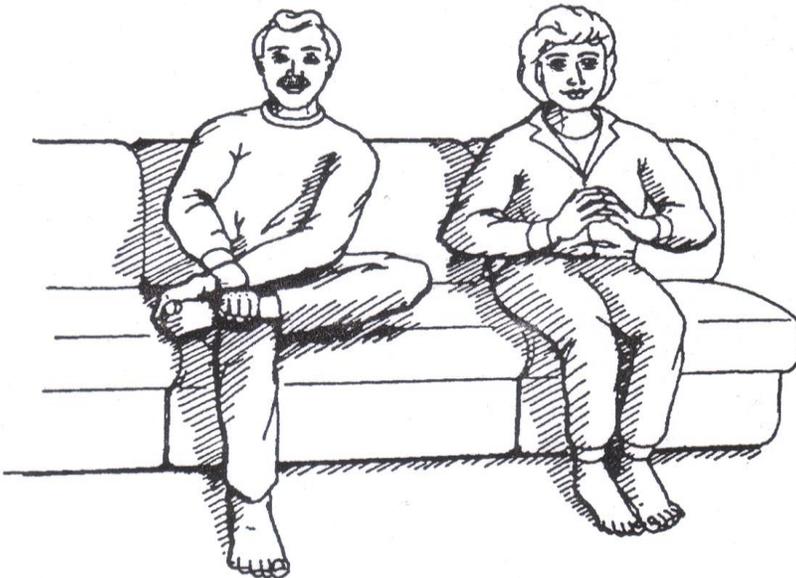
DEEPENING ATTITUDES & ENERGY EXERCISES

Doing the exercises that stimulate the **top and bottom** of the brain to work together activates the neo cortex away from the survival centers in the brain stem and helps the student **focus** on the task at hand, as well as **increase concentration**. The deepening attitude exercises help the student **relax** when faced with new information instead of feeling overwhelmed and giving up.

Example: Hook-ups

PROCEDURE: Part 1

Part 2



Source: *Alternative Health Care - Space Age Interpretations of Age-Old Truths* by Helen Cox and Blaine Patino, page 137.

Part 1:

- Put your left leg on top of right knee.
- Put your right hand around left ankle.
- Put your left hand around the toes of your left foot.
- Breathe deeply with your eyes closed and your tongue on the roof of your mouth.
- Focus on your breath out.
- When you feel relaxed, keep your eyes closed, look up, and put your tongue on the bottom of your mouth.

Part 2

- Focus on your breath in and see yourself how you want to be.
- When you feel finished, uncross your legs and bring your fingertips together until you feel pulsing in all fingertips at same time.

This exercise connects all the energy circuits in the body at one time and gets the electrical energy in the body moving when it is blocked. The figure 8 pattern of the arms and legs (part 1) follows the energy flow lines of the body. The fingertips touching (part 2) balances and connects the brain hemispheres.

In summary, as you can see, **movement** is important for stimulating the nerve networks in the neo-cortex, which is where the processing of information takes place. In traditional education, the logical and analytical sides of the brain are regularly called upon, but the process of "thinking with our bodies" or our kinesthetic intelligence is most neglected. For students that are primarily **kinesthetic learners** this causes great problems. Most of these students could become outstanding learners and achieve great academic success if only slight changes were made in their classroom experience. Ironically, the kinesthetic intelligence so inadequately cultivated in the traditional classroom is highly valuable in industry and other occupations. For example, think about the amount of your movements when you were taught how to ride a bike, prepare a meal, or learn a computer program. Reading directions and/or watching it done is no comparison to actually doing it yourself.

When we actively participate in learning with not only our eyes and ears, but our entire bodies, we are able to remember much more material and have fun doing it.

Options Center believes that we all have the potential to learn in school. Some of us just have difficulty processing information in a way in which we best can understand it. When we use all of our senses (visual, auditory, and kinesthetic) and the brain centers are all integrated, our innate capabilities can be drawn out and realized with great success.



Brain Gym® positively affects the way students process information and allows them to realize their innate capabilities.