

Handouts to accompany

*“My Brain Doesn’t Work
Like That”*

Back-Door Approaches to Learning

by Dr. Jane Bluestein

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TRUE or FALSE?

What Type of Learner are You?

	True	False	n/a
1. I study best when it's quiet.	___	___	___
2. I learn more in a room with bright lights (or natural light).	___	___	___
3. I listen better when I'm doodling, chewing gum or playing with a piece of string.	___	___	___
4. I'm more alert later in the day than early in the morning.	___	___	___
5. I need to study in a relaxed position, with my feet up on the couch, or in bed.	___	___	___
6. I remember things I SEE better than things I hear.	___	___	___
7. I like a lot of freedom on my projects (structure, guidelines are OK).	___	___	___

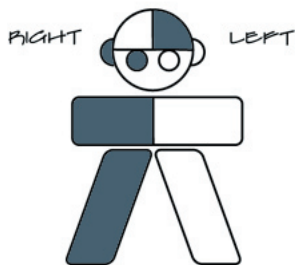
The “Ideal” Student

Traditional classrooms tend to favor students with the following characteristics or strengths:

- Dominance profile: Left-brain dominant, full sensory access: dominant right hand, eye, ear and leg (see figure, below left). Note: Students who are right-brain dominant, full sensory limited (all functions right-dominant, as in figure, below right) may be at the greatest disadvantage.
- Strong in linguistic and logical-mathematical intelligences
- Academically on grade level (not too far ahead or behind)
- Learning Preferences:
 - * Prefers working in a quiet environment
 - * Best time of day: Early morning, afternoon
 - * Social: Prefers working quietly alone or in a group (limited need for interaction)
 - * Can handle highly-structured environment (seated in chairs, sitting up straight, not rocking or fidgeting)
 - * Limited intake needs while working (food, drink, gum, snack)
 - * Low mobility needs
- Modality Strengths: High auditory, high visual; low kinesthetic
- High verbal skills; ability to respond immediately when called on (low need for time to process quietly, internally, before responding)
- Attending behaviors: Eye contact, little talking or movement (note-taking OK particularly in linear, traditional form)
- Temperament traits:
 - * High in adaptability, persistence, regularity
 - * Low in distractibility, intensity, sensory awareness (sensitivity to sound, light, smell or touch)
 - * Low to moderate in activity/energy levels
- Personality Traits: Concrete thinking, logical, rational, organized, prompt, able to follow rules and procedures.
- Studies show other factors (gender, culture, socio-economic status, appearance, popularity, membership in highly-valued groups or teams, for example) to be relevant in certain instances

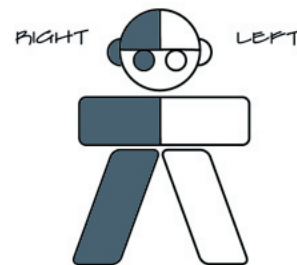
Ways to reach more students:

- Build on student strengths; teach to a variety of intelligences and abilities
- Respect different types of thinking processes, different ways of attending (taking in information), explaining and experiencing the world. (Think beyond uniformity; your own style.)
- Allow students to learn or demonstrate knowledge in ways that are natural for them.
- Provide a comfortable physical environment (light, heat, seating, etc.)
- Allow for movement (stretching, chewing, walking, etc.), talking and social interaction.
- Use a variety of instructional and assessment techniques; integrating curricular areas.
- Minimize or eliminate fear-based interaction, instructional and discipline strategies.



Full Sensory Access
Logic Dominant

“Nearly all the ‘dropouts’ of society have learning styles different from their school’s main teaching style.”
Gordon Dryden



Full Sensory Limited
Gestalt Dominant

Multiple Intelligences: Many Ways to be “Smart”

Linguistic

Skill with words; using language, expressing with words, either written or spoken, and understanding what is said or written. Related skills might include storytelling, memorizing, writing, discussing, debating, journaling, oration and reading.

Logical-Mathematical

Skill with numbers, puzzles, experiments; the intelligence of reasoning. Related skills include understanding principles and systems, problem solving, logic games and brainteasers, logical patterns, manipulating numbers and quantities.

Spatial

The ability to create or think in images, representing the spatial world internally (mentally); manipulating objects, understanding spatial relationships. Related skills include thinking visually, remembering visual details, enjoying movies or video games, building, drawing, sculpting, doing crafts activities, designing architecture or playing chess.

Bodily-Kinesthetic

The intelligence of physical skill; awareness of the body in space, capacity to use the whole body or parts of the body to solve a problem, make something or perform. Related skills include dance, athletics, role playing, getting “gut feelings” about things, acting, sports, physical games, building, movement, tactile or hands-on learning.

Musical

The intelligence of melody, tone and rhythm; hearing, recognizing, remembering or manipulating patterns of sound; a feel for rhythm. Related skills include singing, composing, playing an instrument. Can benefit from activities involving music, such as listening, singing along or playing.

Interpersonal

The ability to understand other people, sensitivity to others’ needs. May manifest in strong social skills, the ability to cooperate and work with others, empathy for and enjoyment of others, and the presence of many friends. Related skills can involve leadership, volunteering, mentorship, teaching, counseling, listening, sales, mediation or politics.

Intrapersonal

The ability to understand the self; self-awareness, a good sense of personal strengths and weaknesses. May manifest in a desire to be alone, make choices, work independently and self-pace. Related skills include the ability to anticipate personal needs and possible reactions, pursue goals independently, reflect on and learn from experience.

Naturalistic

The ability to discriminate among things, identify patterns in the natural world, skill at classifying and organizing. Includes the tendency to be comfortable out of doors, touching and exploring, be attracted to things related to nature, as well as the ability to recognize and categorize things like plants, rocks, animals and other elements of nature; also includes the ability to recognize cultural artifacts (like cars or clothing).



Information on Multiple Intelligences, Modalities and Personality Types was taken from Creating Emotionally Safe Schools by Jane Bluestein, Ph.D. (Deerfield Beach, FL: Health Communications, Inc., 2001)

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Working with Sensory and Modality Strengths

Verbal Ability

Strong Verbal

- Can communicate even under stress
- Like to talk about what they're learning
- May be overreactive to noise, touch, visual input (difficulty paying attention)

Verbal/Communications Limited

- May need more time to think, respond
- May be able to demonstrate understanding in other ways
- May do better in conversation than in front of the class or "on the spot"

Visual Ability

Strong Visual

- Can take in and understand visual input, even under stress
- May notice visual dimensions of an experience (ex: scenery, lighting, color, texture)
- Receive info by looking, watching, reading or being shown
- Need eye contact, need to see speaker
- Do well with maps, charts, diagrams

Visually Limited

- Can overload in a "busy" environment
- May look away from teacher or close eyes to concentrate
- Keep maps, charts and diagrams simple
- Provide verbal directions

Auditory Ability

Strong Auditory

- Can take in and understand auditory input, even under stress
- May notice auditory dimensions of an experience (ex: dialogue, sounds)
- Receive info by listening or being told
- May process with self-talk, inner voice
- May need to look away (shut out visual distractions) or not look at speaker

Auditory Limited

- May tune out speaker after a while

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- May close eyes to concentrate, turn dominant ear toward speaker
- Put directions in writing, make visual info avail, allow to create mental image

Kinesthetic Ability

Strong Kinesthetic

- Would rather touch than look
- May notice kinesthetic dimensions of an experience (ex: action scenes)
- Receive info by touch, movement
- Often described as hyperactive (can become agitated, restless when movement is restricted)
- May have difficulty with visual or auditory input if kinesthetic needs are not met (especially if movement is restricted for a long time)
- Provide kinesthetic outlets (ex: playing with string, clay, beanbag; chewing gum; stretching, moving, bouncing) throughout the day or during "quiet" (non-kinesthetic, listening) activities

Kinesthetically Limited

- Fewer kinesthetic demands in traditional classroom, so will probably do OK
- May have problems in classes that require movement
- Work from their strengths

Keeping Modality Channels Open

- Minimize stress in environment (weaker channels shut down under threat)
- Do integration activities to "wake up" various parts of the brain
- Accommodate more than one modality whenever possible (ex: saying and writing directions)
- Teach kids to self-regulate (without disturbing anyone else)
- Provide outlets, various ways of paying attention (options you can live with, options that will not disturb other learners)

Conditions with ADHD “look-alike” symptoms

- Highly Kinesthetic and/or Tactile Learners
 - Strong in bodily-kinesthetic, spatial, musical intelligences
 - Auditory Dominant
 - Communications-Limited (needs time to process, retrieve and articulate information)
 - Sensory Integration Dysfunction
 - Depression
 - Bi-polar Disorder
 - Asperger’s Syndrome
 - Absence seizures (Petit Mal Epilepsy)
 - Chronic middle ear infection, Sinusitis
 - Visual or hearing problems
 - Sleep disorders
 - Lack of natural light, sensitivity to fluorescent lighting
 - Scotopic Sensitivity Syndrome
 - Seasonal Affective Disorder (SAD)
 - Too-warm temperatures
 - Thyroid problems
 - Poor diet, food allergies, sensitivity to food additives
 - Chemical, environmental sensitivities
 - High extrovert, processes through social interaction, talking, writing
 - Emotional problems
 - Post-Traumatic Stress Disorder (trauma or abuse survivor or witness)
 - Lack of clear guidelines or instructions
 - Inadequate feedback
 - Inadequate instructional stimulation
(lack of novelty, relevance, choices or autonomy)
 - Fetal Alcohol Syndrome/Effect
 - Absence or petit mal seizures
 - Obsessive-compulsive disorder (OCD)
 - Child abuse and neglect
 - Reactive Attachment Disorder
 - Oppositional-Defiant Disorders, Conduct Disorders
 - Temperament-related patterns
- (oversensitivity to sounds or sights, difficulty sequencing movements or processing visual or auditory input, or a tendency to be distracted by details).
- Use of stimulants
 - **Deliberate misbehavior: Better to be “bad” than “dumb”**

These conditions are often misdiagnosed and treated as Attention Deficit Hyperactivity Disorder. This information comes from a variety of sources as reported in Creating Emotionally Safe Schools, by Jane Bluestein, Ph.D. (Deerfield Beach, FL: Health Communications, Inc., 2001) with additions to this list as suggested by readers and workshop participants. (Many workshop participants and email correspondents have added to this list. Check Web site under Hand-outs for Educators for an up-to-date listing.)

Personality Types:

Myers-Briggs Personality Inventory

Overview of David Kiersey's four temperament groups, based on the 16 Myers-Briggs categories (which is only one of over 200 "quadrant models"). Note that people in each group share certain similarities in their reality and their approach to the world, and that the people in one group operate from a different reality than people in the other groups. Our ability to not only recognize that these differences exist, but also to appreciate them and, more importantly perhaps, to provide outlets for their expression in a school setting, can greatly improve an individual's potential for learning and success. See Appendix G on page 105 for additional information.

From Creating Emotionally Safe Schools, Jane Bluestein, Ph.D. (Deerfield Beach, FL: Health Communications, Inc., 2001).

The Guardian (SJ; "Gold")

- Planners and organizers.
- Value correctness, promptness, loyalty, stability, work before pleasure and the ability to follow rules and procedures.
- Responsible, productive, concrete thinkers; like following the chain of command.
- 38% of the general population, about equal numbers of males and females.
- 43% of (HS) teachers and 45% of students; large numbers of administrators.
- Differ along the Introvert-Extrovert and Thinking-Feeling scales.
- Upset when others question authority or don't follow rules, act disrespectfully, come late or unprepared, or don't take things seriously. Also stressed by disorganization, inefficiency and unreliability.

The Artisan (SP; "Orange")

- Freedom-oriented.
- Need spontaneity, "active doing," flexibility and unstructured settings.
- Playful and need for work to be fun.
- Differ along the Introvert-Extrovert and Thinking-Feeling scales.
- 38% of the population, equal males, females
- 7% HS teachers (usually in hands-on elective courses; 40% of high school students
- Resent limitations on their freedom or their random, concrete approach to learning.
- Can do high quality work; capable of tremendous concentration for things they like.
- Stressed by boredom, predictability, rigidity, inflexibility, having to follow a plan, people without a sense of humor, rules in general.
- Highest risk for dropping out (given the structure of a school and all those SJ teachers!)

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The Idealist (NF; "Blue")

- Empathetic, feelers and caregivers
- Can see potential and encourage growth in others.
- Differ along the Introvert-Extrovert scale, Judging-Perceiving scale (structured, organized, formal, finish-oriented vs. flexible, curious, nonconforming, process-oriented)
- Value acceptance, harmony, positive feelings, recognition, authenticity and integrity.
- Abstract thinkers; good at creative problem solving in relationships and associations, characterized by aesthetic experiences and reflective awareness.
- Upset by insensitivity and narrow-minded, judgmental behavior; details, procedures, regulations and red tape.
- Stressed if yelled at or treated impersonally.
- 12% of population, more females
- 35% of HS teachers, 9% of students.

The Thinker/Rational (NT; "Green")

- Analytical; need to know and understand
- Value knowledge and competence, fairness and understanding, strategies and progress.
- Relate intellectually, preferring logic and thinking to feeling.
- Enjoy a good debate and can usually explain things well.
- Differ along the Introvert-Extrovert scale, Judging-Perceiving scale
- Most bothered by incompetence (especially by people in authority), meetings that have no purpose, arbitrary rules, emotional outbursts or anything that seems illogical.
- Stressed if you question their knowledge, make fun of their ability or argue illogically.
- 12% of population, more males
- 15% of HS teachers and 6% of students.

Learning Styles

Children come with a variety of learning styles and preferences which affect how they listen, learn and work. How do you (or could you) accommodate a variety of learning differences in each of the following areas?

Environmental

Sound

Light

Temperature

Design/Seating/Structure

Sociological

Working alone

Working with a partner (one peer)

Working with two or more peers

Working with (younger) students in other classes?

Working with adults

Physical

Perceptual/Modality

Auditory

Visual

Tactile

Kinesthetic

Intake

Time

Mobility

These topics were inspired by questions in the Learning Styles Inventory in The Educator's Self-Teaching Guide to Individualized Instructional Programs by Rita Dunn & Kenneth Dunn (Parker Publishing Co., Inc., Englewood Cliffs, NJ, 1975), reprinted with permission in Being a Successful Teacher by Jane Bluestein, Ph.D. (Fearon Teacher Aids, Frank Schaffer Publications, Inc., 1989).

Increasing Success for ALL Students

There are several ways to change or maintain our level of alertness and attentiveness. Choose options you can live with and those your students can handle. Introduce new options one or two at a time. (Different classes and different individuals may do better with different options.) Remember the phrase, “This isn’t working,” and be willing to keep continued access to these privileges contingent on cooperative, non-disruptive participation by the students. (Stay positive!)

- Listening to music
 - With headphones; without headphones
 - Various types of music (with conditions)
- Varying auditory input (chimes, bells, tone of voice)
- Accommodating lighting needs
 - Full-spectrum lighting, natural light (elimination of fluorescents)
 - Colored acetate sheets over reading material (or colored glasses)
- Chewing (gum, straw, chewy or hard candies, rubber tubing, etc.)
- Movement, stretching, rocking; being able to move around the room
- Hydrating (drinking water)
- Changing seats
 - Changing the visual field
 - Sitting on the floor, kneeling on a chair, standing
 - Using a different kind of seat (therapy ball, bean bag chair, chair with arms)
 - Putting a bungee cord or heavy-duty rubber band around the front legs of the kids’ chairs
- Changing affiliation (working alone, with a partner, in a group)
- Tactile anchor
 - Beanbag, string, piece of clay, stress ball, other “fidget” toy
 - Drawing, doodling
 - Velcro strips glued to desk (carpet squares)
- Variety of different-sized pens, pencils and markers (fatter, thinner)
- Writing on unlined paper, or graph paper (large or small grid)
- Tapping: Mouse pad, felt on end of pencil, pipe cleaner, time for tapping

Many of these suggestions have come from various occupational therapists, physical therapists, kinesiologists, and special education teachers, among others. Their sources include research, books and workshops focusing on the needs of non-traditional learners, as well as contributions from workshop participants and web site visitors.

Brain Gym & Related Resources

Educational Kinesiology Foundation

www.braingym.org

1-800-356-2109, 805-658-7942

* * *

Making the Brain/Body Connection

by Sharon Promislow, 604-922-8811

www.enhancedlearning.com

* * *

Smart Moves by Carla Hannaford

Great Oceans Publishing, 1995.

* * *

Brain Gym (book- Teacher's Edition)

by Paul & Gail Dennison

www.braingym.com; 1-888-388-9898

* * *

Dr. Aili (EYE-lee) Pogust, 856-753-0012

www.pogustgroup.com

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Excel-ability Learning Web Site

www.excel-ability.com/Models/EduK.html

The Animal School

by George Reavis

Text is FREE online at:

[http://www.janebluestein.com/
handouts/animal.html](http://www.janebluestein.com/handouts/animal.html)

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