

KEY PRINCIPLES HOW THE BRAIN LEARNS

◆ Uniqueness

Every single brain is totally unique. Consider each student's unique learning style. "Hardware" comparisons are pointless!

◆ Impact of High Stress or Threat

Since the brain's priority is always survival, threat throws the brain into survival mode at the expense of developing higher order thinking skills. Eliminate threats and decrease excessive stresses.

◆ Developmental Stages of Readiness

Developmental stages vary in children. Typically a three-year span of variance is considered normal. Consider each student's "readiness" for the task.

◆ The Nature of Enrichment

The brain can grow new connections at any age. Complex, challenging experiences with feedback are best. Cognitive skills develop better with music and motor skills. It's Nature and Nurture.

◆ Emotions Critical to Learning

Emotions drive our attention, health, learning, meaning, memory and survival. Allow for emotional expression.

◆ Memory and Retrieval Pathways

Information and experiences are stored in a variety of pathways. Blend mental and physical activity for maximum retention.

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◆ All Learning Is Mind-Body

Movement, foods, attention cycles, drugs, and chemicals all have a powerful modulating effect on learning. Your body has high-low cycles of 90 to 110 minutes. Integrate movement, activities and games into academics.

◆ Patterns and Programs Drive Understanding

Intelligence is the ability to elicit and to construct useful patterns. Use patterns, associations and connections with new data.

◆ The Brain Is Meaning-Driven

Meaning is more important to the brain than information. Until you understand what makes meaning, you can't help them get it!

◆ Rich, Nonconscious Learning

We process both parts and wholes simultaneously; and we are affected by a great deal of peripheral influences. Don't *force* learning, *orchestrate* it.

◆ The Social Brain

Intelligence is valued in the context of the society we live in. Use more teams, pairings and re-groupings to maximize learning.

◆ Complex and Adaptive System

Every brain adapts to its environment based on experience. Effective teaching and impactful change involves consideration of the entire complex system. Use more variety and learner choice in the learning process.