**Why is making connections important?**

**NATURAL LEARNING SYSTEMS a la Barbara Given**

Premise: The brain has "natural" learning systems: Cognitive, Emotive, Social, Physical, and Reflective

**Cognitive** Learning System

* Interprets, stores, and retrieves information via patterns and pictures
* Establishes integrated circuits of knowledge and skill

**Caveat: Can be overrun by the stress response system and other perceived priorities**

**Emotional** Learning System

* Personal meaning ~ relevance ~ accelerate learning
* Empowers and energizes or depresses and stifles all other learning systems
* Manages a learner's motivation, demeanor and creativity

**Caveat: Operates internal stress response activities and generates powerful vehicles for enhancing memory ~ or likewise powerful inhibitors and blockers**

**Social** Learning System

* Governs interactions and communications with others
* Teamwork and team accomplishment are integral to integrated systems
* Working together in pairs or small groups to problem solve integrates systems

**Caveat: Acquiring skills to work effectively with all other types of people is crucial to reducing inefficiencies and increasing long-term productivity**

**Physical** Learning System

* Gathers information through all senses
* Distributes information throughout the brain and they body
* Converts input into action ~ physical encoding and engagement promotes connection and ownership

**Caveat: Takes longer to establish, however is sustained ~ like riding a bike**

**Reflective** Learning System

* Weighs past, present, and future projections
* Interprets verbal and nonverbal cues ~ monitoring mechanisms
* Meta-cognates: "Under this circumstance, in this environment, what do I need to do to increase my understanding?" ~ performance

**Caveat: Cognitive, Emotive, and Physical Systems always operate within a context. An environment that exists either physically or perceptually in the mind.**

**Barbara Given: "Teaching to the Brain's Natural Learning Systems" ASCD 2002**

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