Learning Theories Defined

**Constructivism:**
- Reflection on experience
- Understanding of *whole* as well as *parts*
- Relate new information to old
- Create personal *rules*
- Create personal *mental models*
- Process = continual creation of new models
- Vital that we understand individual models and critically compare them to other models

**Behaviorism:**
- Reaction to stimuli
  - Automatic response to familiar stimuli
  - New responses to novel stimuli
- Rewards observable behaviors to reinforce them
- Ignore or punish observable behaviors to eliminate them
- Classical conditioning: natural responses
- Operant conditioning: learned responses

**Cognitive (Brain-based learning)**
- Metacognition (thinking about and planning for learning)
- Cognition
- Brain-based learning:
  - The brain changes over a lifetime
  - Key to ongoing changes:
    - Meaning
    - Connections between new and old
    - Conscious learning opportunities
    - Unconscious learning opportunities (acquisition)
  - What the brain is:
    - Self organizing system
    - Redundant system
    - Overlapping system
    - Capable of multitasking
  - What the brain is not:
    - Linear processor
    - Parallel processor
  - Brain dynamics:
    - Left Brain
- Logical
- Sequential
- Rational
- Analytical
- Objective
- Components
  - Right Brain
    - Random
    - Intuitive
    - Holistic
    - Synthesizing
    - Subjective

**Community of Practice:**
- Learning is fundamentally a social phenomenon.
- Knowledge is integrated in the life of communities (groups, disciplines) that share values, beliefs, languages, and ways of doing things.
- The processes of learning and membership in a community of practice are inseparable. Roles change as learning changes.
- Knowledge is inseparable from practice. It is not possible to know without doing. By doing, we learn.
- Empowerment—or the ability to contribute to a community—creates the potential for learning.

**Control/Motivation:**
- Intrinsic motivation works better than extrinsic
- Control behavior to meet needs

**Observation:**
- Learning by observation requires: attention, retention, production and motivation
- Model must contain elements that learner finds “attractive”
- Learning is dependent on rewards