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
    - o Automatic response to familiar stimuli
    - o 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:
    - o The brain changes over a lifetime
    - o Key to ongoing changes:
        - ▪ Meaning
        - ▪ Connections between new and old
        - ▪ Conscious learning opportunities
        - ▪ Unconscious learning opportunities (acquisition)
    - o What the brain is:
        - ▪ Self organizing system
        - ▪ Redundant system
        - ▪ Overlapping system
        - ▪ Capable of multitasking
    - o What the brain is not:
        - ▪ Linear processor
        - ▪ Parallel processor
    - o 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