Thinking Critically (Research)

- Hypotheses (Testable prediction)
  - Variables
    - Independent
    - Dependent
  - Correlation
    - Positive
    - Zero
    - Negative
    - VS. Causation (Correlation is not causation)
    - Illusory (false)

- Theory (Organizes facts)
- Naturalistic Observation
- Needs
- Experimental Group
- Control Group
- Problems
  - Placebo Effect
  - Hawthorne Effect
  - Double Blind
- Groups
  - Experimental Group
  - Control Group
- Replication
- Survey
- Case Study
- Case
- Groups
  - Simple
  - Systematic
  - Random Sample
  - Random Assignment
  - Representative Sample
- Population
- Population
- Generalizing from:
  - Select Cases
  - Unrepresentative Cases
- Thinking Critically (Research)
  - Problem Thinking
    - Seeing order in random events
    - Hindsight Bias (Explaining events in hindsight)
  - Illusory (false)