

HLTH 230  
Dr. Holt

## Lecture 1 – January 27

### Research Methods

1. Quantitative Methods
  - a. Between Groups Design
    - i. Cross-Sectional – one time; totally different groups; ‘snapshot’ (ex. census)
    - ii. Longitudinal – follow the same group over time
  - b. Within Groups Design
    - i. Pre-Post – tests to see if intervention works
      1. Pre – baseline; assesses starting knowledge of the dependent variable
      2. Intervention – independent variable
        - a. Intervention – Public campaign or program designed to impact an outcome
      3. Post – Dependent variable
    - ii. Crossover – Drug/Placebo tests
      1. One group receives the drug for x amount of time, then they receive the placebo for x amount of time and vice versa for placebo group
      2. Done so everyone gets the same treatment, just not all at once
  - c. Direct Observation
    - i. Casual
    - ii. Formal
    - iii. Participant Observation – become a member of a group in order to observe group
  - d. Interviews (Structured)
    - i. Pre-prepared set of questions
  - e. Meta Analysis (Statistical Technique)
    - i. Statistical analysis of previous studies and their findings
      1. Done to develop an effect size
    - ii. Make a mathematical assessment of data
  - f. Questionnaires and Surveys
    - i. Objectives
    - ii. Types of respondents
    - iii. Types of questions
    - iv. Content
    - v. Question format – closed-ended or open-ended; Likert type (scale of 1-5)
    - vi. Reliability and stability
      1. Stability over time
      2. Do the questions assess the intended construct?
    - vii. Sensitivity to change – Pre-Post test, e.g.
  - g. Randomized Controlled Trial (RCT)
    - i. Manipulation of independent variable
    - ii. Random assignment of participants to treatment and control groups
    - iii. Intended to demonstrate a cause-effect
  - h. Quasi-Experiment
    - i. Similar to RCT but when independent variable can not logically be manipulated
      1. Comparison group – alternative independent variable; control group gets some treatment as opposed to no treatment (placebo group in drug trials, e.g.)