Research Processes, Choices & Validity Consequences

### Participant Selection

**“Who participates in the Study?”**
- Target Population
- Sampling Frame
- Selected Sample
- Data Sample

**External → Population Validity**
- Complete or Purposive
- Researcher- or Self-selected
- Simple or Stratified
- Attrition

### Participant Assignment*

**“Who participates in what condition(s), when?”**
- Population (Representative or easy to control)
- Setting (Laboratory, Structured or Field)

**Assignment Procedure**
- random assignment of individuals by the researcher
- random assignment of groups
- random assignment – arbitrary conditions by researcher
- random assignment – conditions set by “administrator”
- self assignment
- non-assignment (e.g., natural or pre-existing groups)

**Internal → Initial Equivalence Validity**
- (Measured/Subject variables)
  - Choices of “who” and “where” can influence ability to perform proper random assignment

<table>
<thead>
<tr>
<th>Research Design</th>
<th>BG</th>
<th>WG</th>
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<td>True Experiment</td>
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<td>Non-experiment</td>
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### IV Manipulation, Task Completion & Data Collection

**Population (Representative or easy to control)**
- Setting (Laboratory, Structured or Field)
- Task/Stimulus (Representative or easy to control)

**Length of manipulation** (shorter or longer)

**How IV is manipulated**

**How DV is measured**

**Internal → Ongoing Equivalence Validity**
- (Manipulated/Procedural variables)
  - Choices of “who”, “where”, “what doing”, and “for how long” can influence the ability to maintaining control & get good measures

**External → Population, Setting, Task/Stimulus**
- Choices of “who”, “where”, “what doing”, and “for how long” can influence the ability to generalize research findings

**Measurement Validity**
- Not all IV manipulations and DV measures are “equally good” – should know “conventions” and “traditions”
- Choices of “who”, “where”, “what doing”, and “for how long” can influence the ability to perform proper IV manipulations and/or get good measurement of the DV

### Data Analysis

**Statistical Conclusion Validity**
- Complete or Purposive
- Researcher- or Self-selected
- Simple or Stratified
- Attrition