I.4 Goals and Objectives

- Learn about the ways and means of developmental research.
- Types of studies, limitations, ethics
- Publishing and making family policy.
- Apply the methods to test popular assertions and beliefs.
- Evaluate several influential studies/claims.

Measurement in Child Development Research

- Observations: watch ‘em.
  - Naturalistic or Structured
  - Sample behavior: test ‘em.
  - Self reports: ask ‘em.

Naturalistic Observation

- Natural environment.
- “Cops” approach.
- Baby biographies
- First words.
- Disadvantage: Can’t test private or infrequent behaviors.

Structured Observation

- Standardized Set-up
- Can study rare behavior!
- “Survivor” approach.
- Gender-biased toys
- Disadvantage: Setting may affect behavior.

Sample Behavior with Tasks

- Some things are really hard to observe.
- E.g. Memory, Intelligence, scholastic understanding.
- Find a task that taps the construct.
- Digit span, Rubik’s Cube, SAT’s

Self Report

- Interviews and questionnaires:
  - How many of you have taken a poll?
  - Everyone else raise your hand cause you just did.
  - Disadvantage: not always accurate.
  - Kids forget, lie, are just wrong.
Concerns with measurement

- **Reliability**: you will say/do the same thing another day.
- **Validity**: That this question (or test/experiment) measures what you wanted to measure.

Representative Sampling.

- Your study is only as good as the people.
- Population: The big group we care about.
  - All children.
  - Children at 12 months.
- Sample: Who we actually measure.
  - Problem with much research is it focused exclusively on American children.

Correlational Studies

- A correlation describes a relationship between two variables in the real world (usually a static picture, and rarely 100%).
- Eg: Having friends is linked to being smart.
- Correlation Coefficient.
  - From -1 to 1.
  - 0 is no link at all.
- Can never know the direction of correlation! Correlation ≠ causation.

Experimental Studies

- **Hypothesis** which tests causation.
- **Variables** - literally "things that vary".
  - **Independent**: What you change.
  - **Dependent**: What you measure.
- Lab-based or **Field Experiments**.

More design features

- **Within-subjects**: When use same person.
  - Can test hypothesis on person.
  - More powerful.
- **Between-subjects**: When use different people.
Ethical Responsibilities

- Minimize risk.
- Informed consent.
- Avoid deception.
- Results private.

Communicating Research Results

- Step 1) write report & submit to journal.
- Step 2) revise until accepted.
- Published research provides the basis for the information presented in the book.
- Results of individual studies will be reported in the Focus on Research features.

Focus on research: Answers key questions

- Who were the investigators and what was the aim?
- What were the IV and DV?
- Who were the subjects?
- What was the design?
- Were there ethical concerns?
- What were the results?
- What did they conclude?
- What converging evidence would help?