

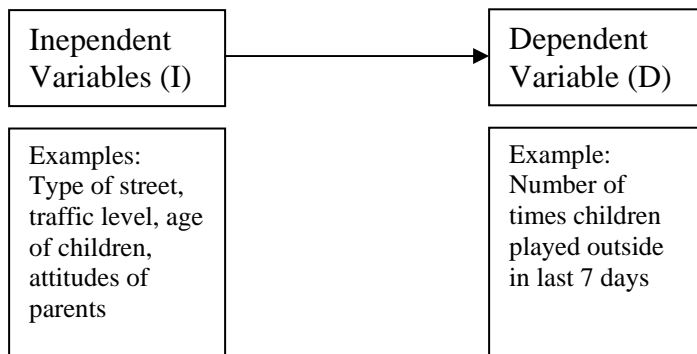
ESP 178 Applied Research Methods

1/8 - Basic Concepts of Research

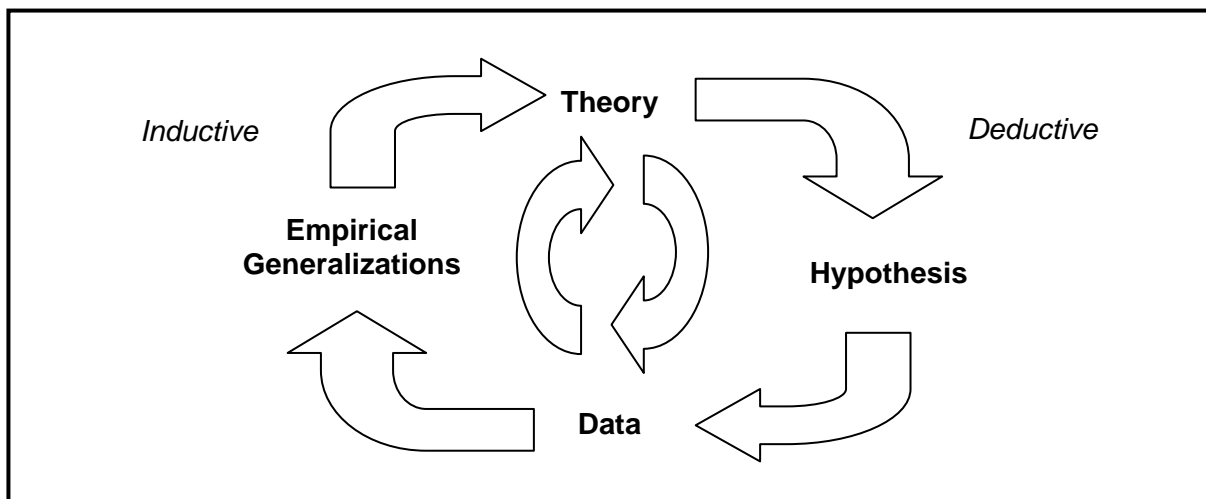
KEY CONCEPTS FROM CHAPTERS 1 AND 2

Note: Read summary of cul-de-sacs proposal on class website as background for examples!

Deductive Research: hypotheses, independent variables, dependent variables, direction of association



The Deductive/Inductive Cycle: the role of theory, deductive research, inductive research



Types of social research: descriptive, exploratory, explanatory

Type of Question	Generic Questions	Example Questions	Usual Methods
Descriptive	How is the population distributed for I? How is the population distributed for D?	What share of children live on cul-de-sacs? How often do children play outside on average?	Descriptive statistics (univariate analysis): frequency distributions, means;
Exploratory - Inductive	What is the nature of D? What are possible Is? How are I and D connected, through what process?	What kind of things do children do outside? What factors influence whether a child plays outside or not?	Qualitative research: focus groups, in-depth interviews; ask people why D
Explanatory - Deductive	Does I affect D? Is the association between I and D statistically significant?	Hypothesis: Living on a cul-de-sac is positively associated with frequency of playing outside	Multivariate analyses, using data from surveys, observation, existing sources; measure I, measure D, then statistically test association

Evaluation research: Does policy have the intended effect? What unintended effects?

Intervention research: Does program have the intended effect? What unintended effects?

Key questions:

Is the research valid? measurement validity, generalizability (external), causal validity (internal)

Type of Validity	Definition	Examples	An issue in...
Measurement validity	Measure of a variable is accurate (e.g. matches the "gold standard")	Parents' reports of how often their children play outside are accurate - reports match the actual number of times children play outside	... conceptualization and operationalization
External - Generalizability	Results of study can be generalized to other populations	Study of outside play in Sacramento gives same results as would be found in other communities	... sampling
Internal - Causal validity	Relationships revealed by study are real	Cul-de-sacs are linked to more outdoor play because traffic is lower and parents are more willing to allow outside play	... research design

Is the research ethical? honesty and openness, uses of science, research on people

- "informed consent"
- Institutional Review Boards

For Thursday Lecture: Read Schutt Chapters 1, 2, and 4, plus Cul-de-sacs Summary (on website)

For Thursday Section:

- Review Syllabus, Research Proposal, and Research Proposal Stage 1
- Use the web to find a definition of "science" you like. Be sure to think about the source of the definition! Bring your definition to section.