

Concepts in Research Design

1) First step: What is your question?

a) You must **ASK** a question that can be **ANSWERED**.

i) Common mistakes:

(1) *Just identifying an area of interest.* This is a fine place to start, but as a strategy for conducting a research project, it will take you nowhere.

(2) *Stating an area but not a question:*

(a) “The problem of poverty in inner cities” vs.

(b) Why is there more poverty in inner cities than in suburbia

(3) *Stating a question but not a relationship*

(a) Why is there poverty in inner cities vs.

(b) Is the poor educational system a cause of poverty in inner cities?

(4) *Asking TOO BIG of a question FOR THE PROJECT AT HAND.*

(a) How can government alleviate poverty in the inner cities vs.

(b) Did the 1996 welfare reform act’s provisions regarding work put more Wisconsin welfare recipients into jobs

(c) HOW BIG IS YOUR PROJECT?

2) How to build a theory?

a) This about **EMPIRICAL REGULARITIES**. Think about **VARIABLES** (see below). Think about **CAUSES** or **CORRELATIONS**.

b) **Methods of comparison** (Mills, Stephen Van Evera)

i) Method of similarity, Method of difference

(1) On what **MEASURE** or **VARIABLE** are cases most similar or most different?

c) **Inductive or Deductive Approach:** for most of us, inductive approach is best

3) Variables: **THINGS THAT VARY**.

a) **VARIATION** is a key to making causal statements

b) **DEPENDENT AND INDEPENDENT VARIABLES**

c) **ARROW DIAGRAMS:** useful ways to map out your theory

- 4) **HYPOTHESES:** explicit statement that indicates how a researcher thinks a phenomena of interest are related.
- a) What are the characteristics of a good hypothesis?
 - i) **Empirical:** educated guesses about things that exist in the real world, not about things ought to be true or that you want to be true.
 - ii) **General:** try to state your hypothesis in such a way that you refer to a larger set of events, not just one event in particular.
 - iii) **Fertile:** good hypotheses generate additional rival, counter, complementary hypotheses
 - iv) **Directional** if possible. MORE education leads to MORE income.
 - v) **Feasible:** here is some evidence that will help us determine whether a hypothesis is false or not.

5) **Unit of Analysis:**

- i) Simply the level of your analysis, should be indicated in your hypothesis.

6) **Measurement**

- a) **Concept:** the THEORETICAL thing that you are interested in. Unobservable
- b) **Measure:** the OPERATIONAL thing you will look at. May or may not be closely related to the concept. The closer they are, the better off you are.
- c) Not all things are easy to measure; many things are impossible to measure. DON'T ASSUME I SIMPLY MEAN QUANTITATIVE MEASUREMENT!

7) **Measurement Concepts:**

- a) **Reliability:** Will the measure yield the same result in repeated trials.
- b) **Validity:** is the measure closely related to the underlying concept

8) **Final Details**

- a) **Nominal, Ordinal, Interval, Ratio Measures**
- b) **Indices:** Measures made up of other (generally error prone) measures. (Example: political efficacy).