

### **3 distinct steps in the research process**

•Conceptualization: Identifying what we want to study

- Conceptual definitions are abstract and idealized, always grounded in theory
- Eg. Education: Formal knowledge gained in a school setting

•Operationalization: Deciding how to ground our conceptualizations in reality

- Operational definitions are the actual criteria for measuring theoretical concepts, based on what is possible to collect
- It is what we can measure, not necessarily what we would like to measure. Falls short of the conceptual definition in many ways.
- Eg. Years of schooling

•Measurement: Practical acquisition of data about concept

- Measures are actual data that have been collected, they are limited to what we can discover from survey questions (etc.)
- A practical compromise that takes into account the fact that survey answers must be analyzed en masse
- Eg. What is the highest level of schooling that you have completed?

•The 3 steps to measurement are in many ways parallel to the 3 steps to sampling

- Conceptualization  $\Leftrightarrow$  Target population
- Operationalization  $\Leftrightarrow$  Sampling frame
- Measurement  $\Leftrightarrow$  Sample

•All measures represent trade-offs between reliability and validity

- *Reliability* refers to operational dependability: "does the scale show the same weight every time you step on it?"
- *Validity* refers to conceptual correctness: "does the scale show your weight, as opposed to height or waistline?"

•In general

- Quantitative researchers put more emphasis on reliability
- Qualitative researchers put more emphasis on validity