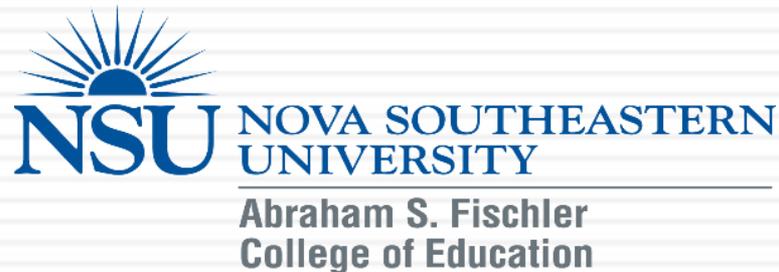


# Writing Chapter 3

Tips for Success From a Research Professor

Jennifer Reeves, PhD



# Methodology

- The Methodology defines how you are going to address the research questions.
- Only included in the Proposal and Final AD
- Elements to include in Chapter 3: Methodology
  - ▣ Participants
  - ▣ Instruments
  - ▣ Procedures
    - Research Design
    - Data Collection Procedures
    - Data Analysis Procedures

# Methodology (cont'd)

---

- ▣ Limitations
- ▣ Anticipated Outcomes

# Participants

- The population and sample should be identified and described
- Sampling procedures should be described and justified
- Describe “who,” “how many,” “type,” etc., of any participants
- “Type” includes demographic information such as gender, age, ethnicity, etc.

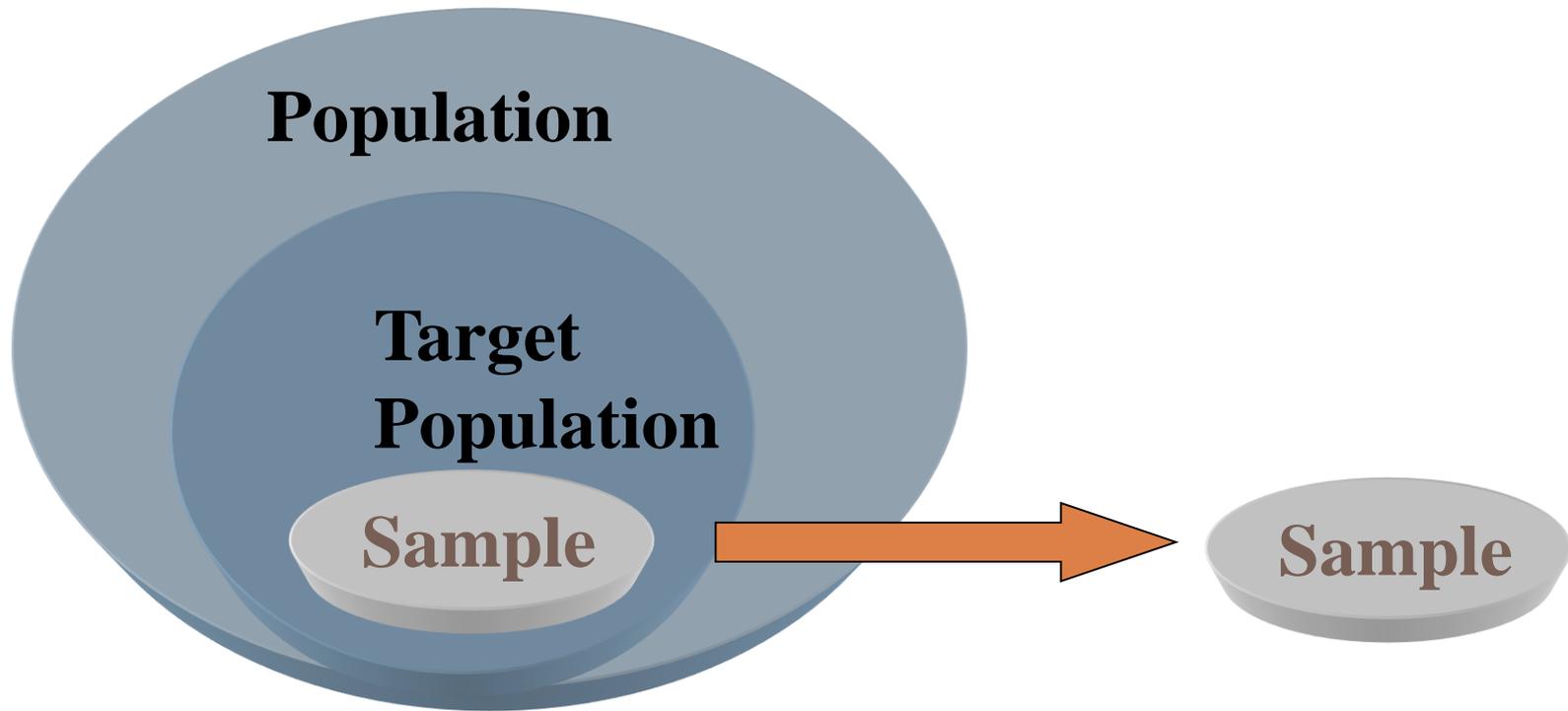
# Population

- A *population* is the entire set of individuals that we are interested in studying
- This is the group that we want to generalize, or apply our results to
- Although populations can vary in size, they are usually quite large
- Thus, it is usually not feasible to collect data from the entire population

# Sample

- A *sample* is simply a subset of individuals selected from the population
- In the best case, the sample will be representative of the population
- That is, the characteristics of the individuals in the sample will mirror those in the population

# Sampling



Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson Education.

# Sampling Procedures

- Probability Sampling
  - ▣ Sample is representative of the population
  - ▣ Involves random selection
- Nonprobability Sampling
  - ▣ Selection based on judgment or convenience
  - ▣ Cannot guarantee sample is representative of the population

# Probability Sampling

- Simple Random Sampling
  - ▣ All individuals in population have an equal and independent chance of being selected.
- Systematic Sampling
  - ▣ Selecting every  $n$ th person
- Stratified Random Sampling
  - ▣ Ensuring certain subgroups are adequately represented
- Cluster Sampling
  - ▣ Randomly selecting a naturally occurring group

# Nonprobability Sampling

- Convenience Sampling
  - ▣ Selecting a sample because it is convenient to the researcher
- Quota Sampling
  - ▣ Divides the population into subgroups
  - ▣ Samples until the quota is exhausted
- Judgment Sampling
  - ▣ Participants selected based on expert judgment

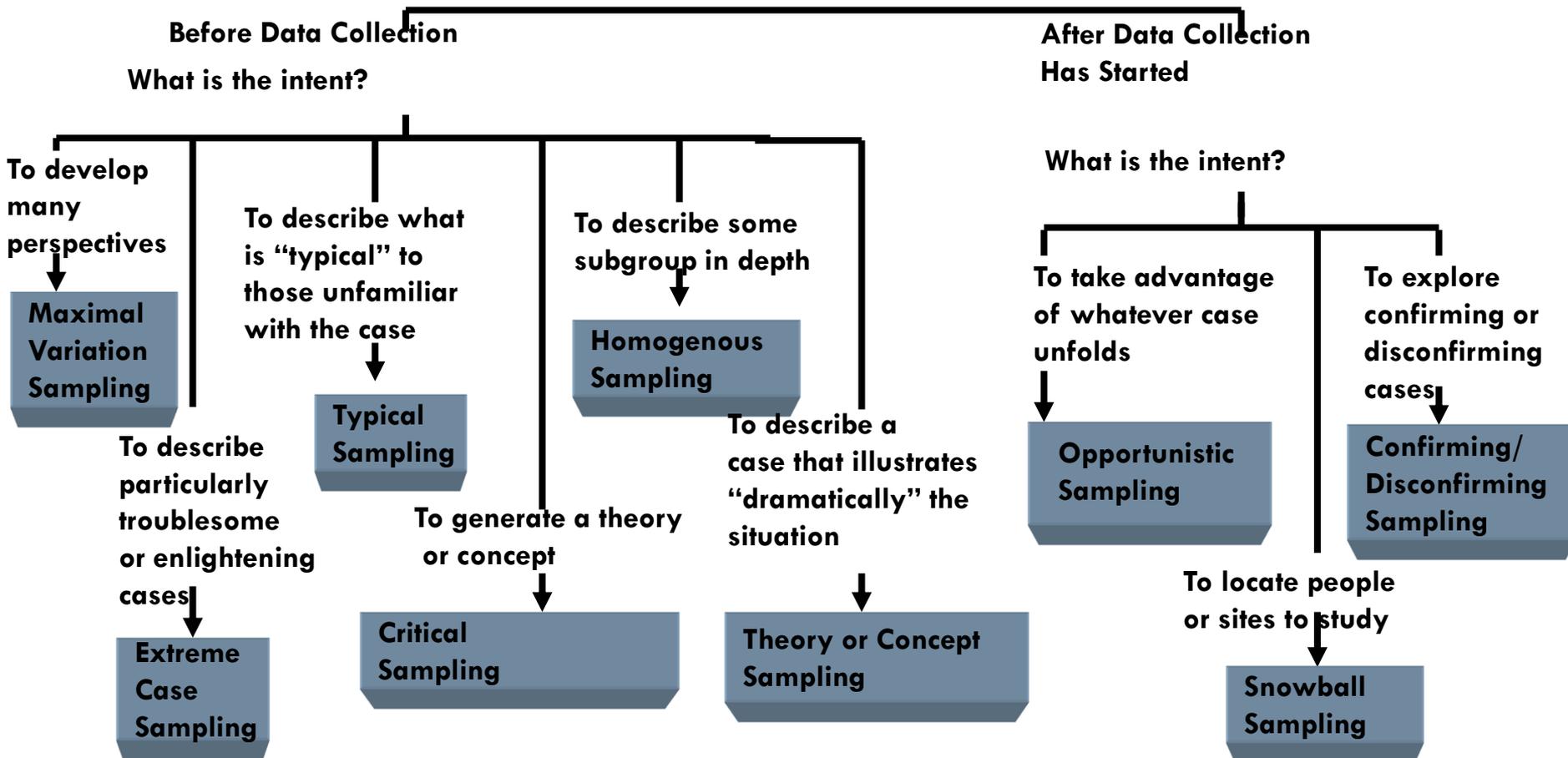
# Nonprobability Sampling (cont'd)

---

- Purposeful Sampling
  - ▣ Selecting cases that are information-rich with respect to the purposes of the study.

# Types of Purposeful Sampling

## When Does Sampling Occur?



# Instruments

- This section should detail all instruments to be used.
- Examples of data-gathering instruments include standardized tests, teacher-made tests, questionnaires, interview guides, psychological tests, or field-study logs
- Indicate the source (or developers; literature citation) of the instrument and cite appropriately
- Include validity and reliability information
- Any other salient information (i.e., measurement scales)

# Procedures

- Clear, precise, and sequential statements describing how the project will be conducted
- The “how to” section of the study to illustrate how each research question will be answered
- Need to include what, who, how, when, and where for each methodology used!
- Also need to include the data analysis procedures.

# Procedures (cont'd)

- The approach (i.e., design) to conducting the research (e.g., experimental, quasi-experimental, survey, or ethnographic) and the appropriate procedures to be followed must be included.
- Examples:
  - ▣ For an experimental or quasi-experimental study, the proposal should indicate how participants will be assigned to treatments and how the research will be conducted to ensure internal and external validity.
  - ▣ If an evaluation project is proposed, the evaluation model to be followed should be specified.

# Limitations

- Limitations are conditions, restrictions or constraints that may affect the validity of the project outcomes
- A limitation is a weakness or shortcoming in the project that could not be avoided or corrected and is acknowledged in the final report
- Common limitations are the lack of reliability of measuring instruments and the restriction of the project to a particular organization setting

# Anticipated Outcomes

---

- Description of expected results of the study
- Detail the importance of conducting the study as well as possible impact on practice and theory

# Questions?

- Jennifer Reeves, PhD
  - [jennreev@nova.edu](mailto:jennreev@nova.edu)



<http://bit.ly/29nTHRv>