

Social Research Methods: Qualitative and Quantitative Approaches

Eighth Edition



Chapter 8

Qualitative and Quantitative Sampling

Learning Objectives

8.1 Describe how sampling is used in quantitative and qualitative studies.

8.2 Describe the probability and non-probability types of representative sampling.

8.3 Describe types of sampling for non-representative samples.

8.1 Reasons for Sampling (1 of 2)

Objective: Describe how sampling is used in quantitative and qualitative studies.

- Most empirical studies use some form of sampling.
- The primary use of sampling in quantitative studies is to create a representative sample.
- In most quantitative studies, the researcher wants to see how many cases in a population fall into various categories of interest.
- In quantitative sampling, the sample stands in for the larger population.

8.1 Reasons for Sampling (2 of 2)

- In qualitative sampling researchers select aspects/features of the social world and then use those to highlight key dimensions or processes in a complex social life.
- The goal in qualitative sampling is to deepen understanding about a larger process, relationship, or social scene.
- In qualitative sampling, it is the relevance to the research topic rather than the representativeness of the subject that determines whether a subject is selected.

8.2 Strategies When the Goal is to Create a Representative Sample (1 of 14)

Objective: Describe the probability and non-probability types of representative sampling.

- Two mistakes researchers make:
 - Conduct sampling in a sloppy or improper manner.
 - Choose a sample type that is inappropriate for the study.
- Probability sampling is the preferred method for representative samples.
 - Uses reasoning and applied mathematics.

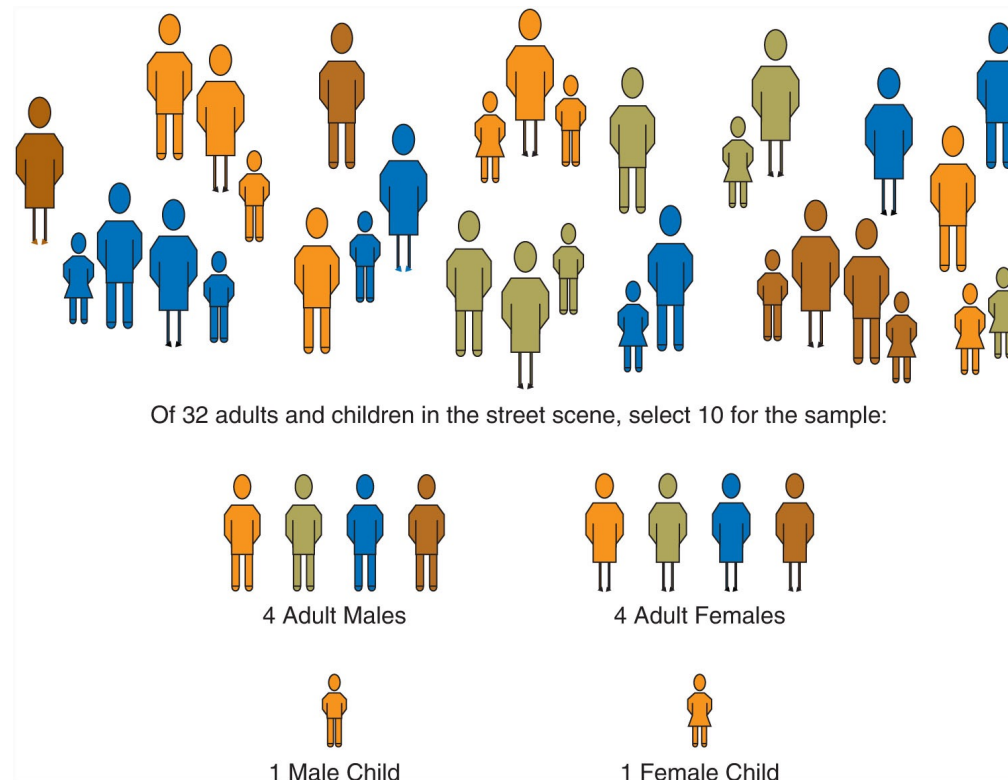
8.2 Strategies When the Goal is to Create a Representative Sample (2 of 14)

- Non-probability Sampling Techniques
 - Convenience Sampling
 - Quota Sampling
- Convenience sampling is also called accidental, availability, or hazard sampling.
 - It is not recommended for creating an accurate sample to represent the population.
 - Primary criteria for selecting cases is that they are easy to reach, convenient, and readily available.

8.2 Strategies When the Goal is to Create a Representative Sample (3 of 14)

- Quota Sampling

Figure 8.1 Quota Sampling



8.2 Strategies When the Goal is to Create a Representative Sample (4 of 14)

- Probability Sampling Techniques

- The Language of Probability Sampling

- Sampling unit—the unit of analysis or case in a population

- Population (also called universe)—the large collection

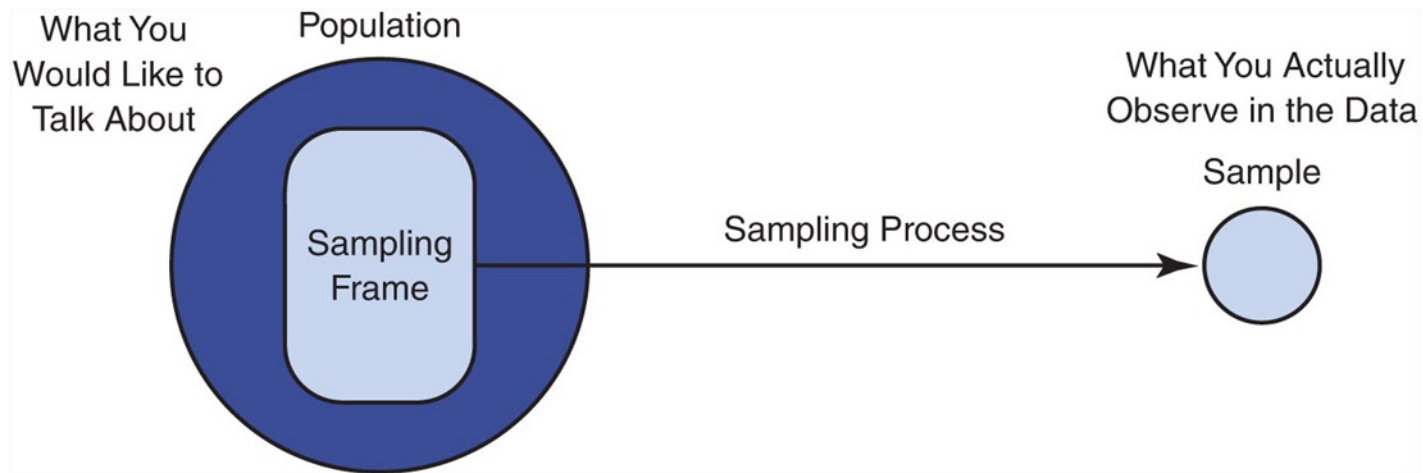
- Target population—the specific collection of elements being studied

- Sampling frame—an empirically concrete specific list

- Sampling ratio--the ratio of the sampling size to the target population

8.2 Strategies When the Goal is to Create a Representative Sample (5 of 14)

Figure 8.2 A Model of the Logic of Sampling



8.2 Strategies When the Goal is to Create a Representative Sample (6 of 14)

- Random Sampling
 - Most likely to represent the entire population
 - Allow researchers to calculate statistically the relationship between the sample and the population—the sampling error.
 - Rely on random selection processes.
 - Random selection for sampling requires more precision, time, and effort than samples with nonrandom selection.

8.2 Strategies When the Goal is to Create a Representative Sample (7 of 14)

- Six Ways to Sample Randomly
 - Simple Random

Two main ways to obtain a list of random numbers

- Random-number table—the numbers are generated by a purely random process—now done by computer programs
 - Sampling distribution—a set of many different samples
 - Central limit theorem (CLT)
 - Confidence interval

8.2 Strategies When the Goal is to Create a Representative Sample (8 of 14)

Chart 8.2 Example of Sampling Distribution

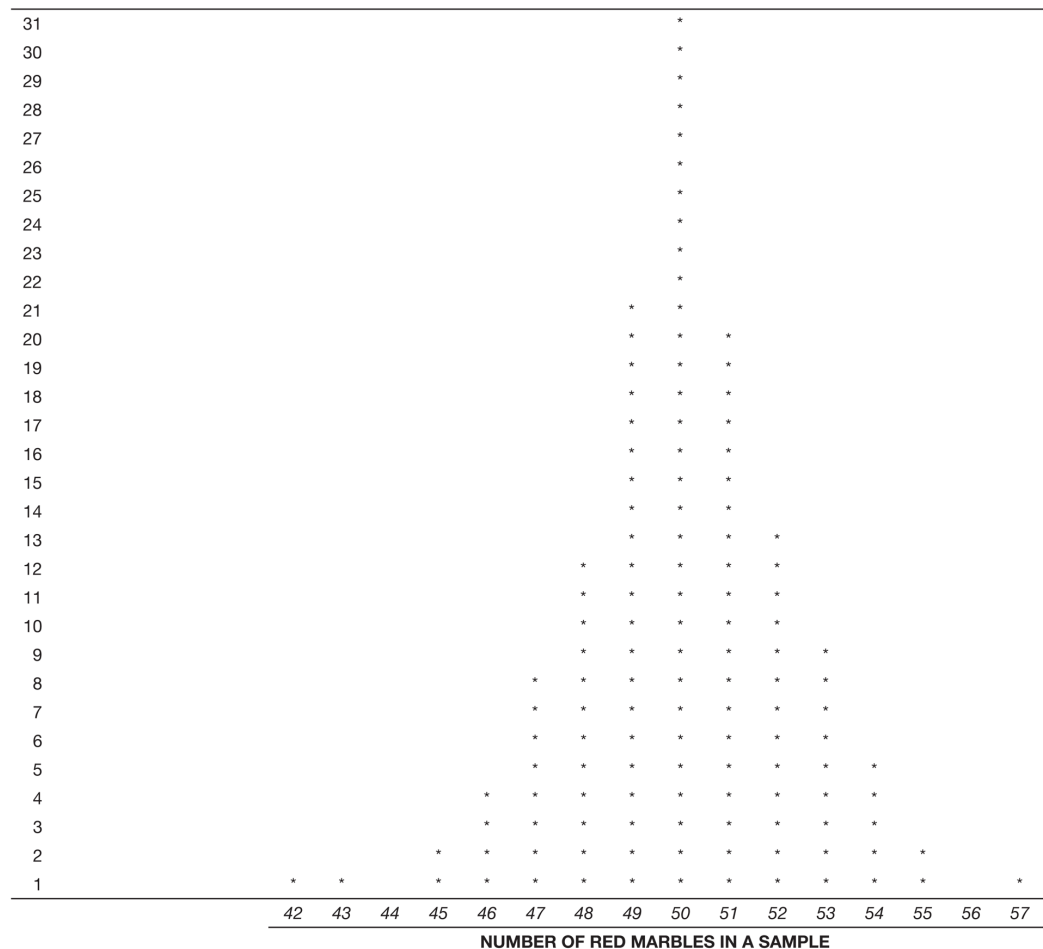
Red	White	Number Of Samples
42	58	1
43	57	1
45	55	2
46	54	4
47	53	8
48	52	12
49	51	21
50	50	31
51	49	20
52	48	13
53	47	9
54	46	5
55	45	2
57	43	1
Total		130

Number of red and white marbles that were randomly drawn from a jar of 5,000 marbles with 100 drawn each time, repeated 130 times for 130 independent random samples.

8.2 Strategies When the Goal is to Create a Representative Sample (9 of 14)

Chart 8.2 [Continued]

Number Of Samples



8.2 Strategies When the Goal is to Create a Representative Sample (10 of 14)

- Systematic Sampling
 - A simple random sampling with a shortcut selection procedure.
 - Instead of using a list of random numbers, the researcher first calculates a sampling interval to create a quasi-random selection method.
 - In most cases, a simple random sample and a systematic sample yield equivalent results.
 - Systemic sampling cannot be substituted for simple random when the elements of a sample are organized into some sort of cyclic pattern.

8.2 Strategies When the Goal is to Create a Representative Sample (11 of 14)

- Cluster Sampling
 - Addresses two problems:
 - Lack of a good sampling frame for a dispersed population
 - The high cost to reach a sampled element
 - A cluster is a unit that contains final sampling elements but can be treated temporarily as a sampling element itself.
 - Cluster sampling is usually less expensive than simple random sampling, but it is less accurate.

8.2 Strategies When the Goal is to Create a Representative Sample (12 of 14)

- Special Situations

- Random-Digit Dialing (RDD)

- The general public is interviewed by telephone.

- Address-Based Sampling (ABS)

- Based on addresses provided by the U.S. Postal Service

- Can be used for mail questionnaires or invitations to participate in web surveys.

8.2 Strategies When the Goal is to Create a Representative Sample (13 of 14)

- Deciding the Sample Size

- Two Methods

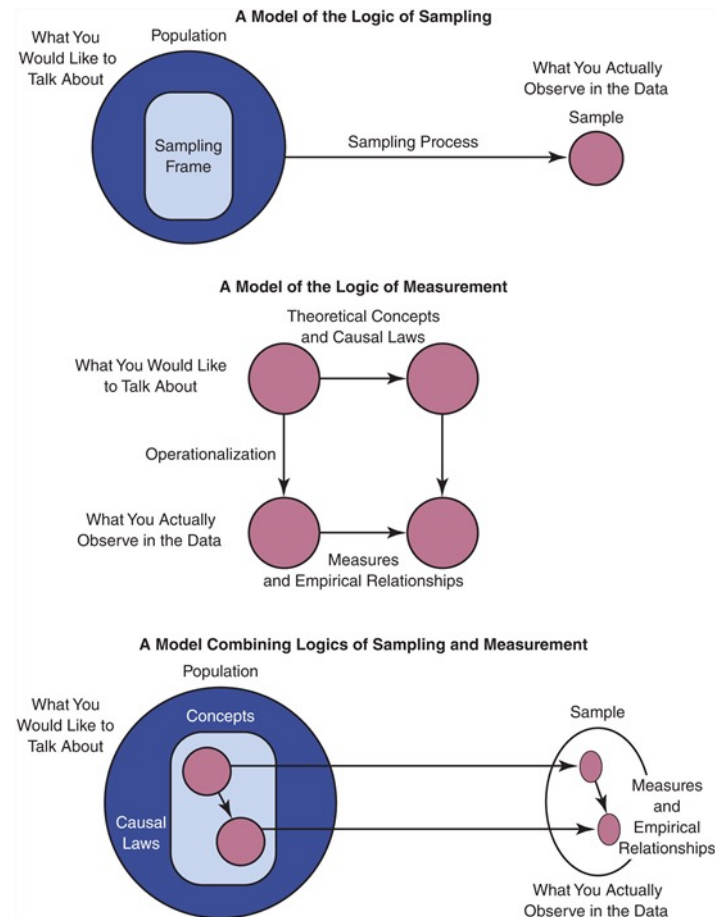
- Make assumptions about the population and use statistical equations about random sampling processes.

- Use rule of thumb—a conventional or commonly accepted amount

- The smaller the population, the larger the sampling ratio has to be for a sample that has a high probability of yielding the same results as the entire population.

8.2 Strategies When the Goal is to Create a Representative Sample (14 of 14)

Figure 8.4 A Model of the Logic of Sampling and of Measurement



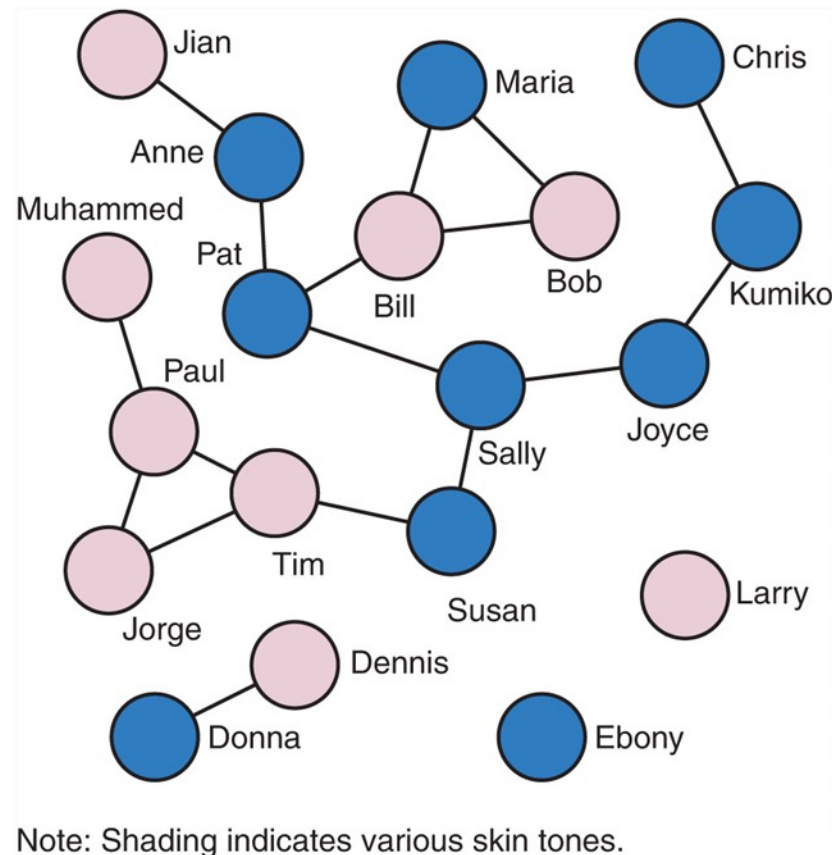
8.3 Strategies When the Goal Differs from Creating a Representative Sample (1 of 3)

Objective: Describe types of sampling for non-representative samples.

- Five Nonrepresentative Sampling Techniques
 - Purposive or Judgmental Sampling
 - Linked-Traced Sampling
 - Snowball sampling
 - Respondent-driven sampling
 - Adaptive sampling

8.3 Strategies When the Goal Differs from Creating a Representative Sample (2 of 3)

Figure 8.5 Sociogram of Friendship Relations



8.3 Strategies When the Goal Differs from Creating a Representative Sample (3 of 3)

- Deviant Case Sampling
- Sequential Sampling
- Theoretical Sampling

Conclusion

- A sampling strategy should match a study's specific purpose.
- Probability sampling is preferred for a representative sample.
- With the exception of convenience sampling, nonprobability samples are best suited for studies in which the purpose is other than creating a sample that is highly representative of a population.
- It is important to see the interconnections among all the steps of the research process.

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