

# Selecting a Sample



# Topics covered

- Differences in sampling in quantitative and qualitative research
- Definition of sampling terminology in quantitative research
- Principles of sampling
- Types of sampling
- Sample size
- Concept of saturation point in qualitative research



# Differences in sampling in quantitative and qualitative research

## Quantitative research

- Unbiased
- Representative
- Make inferences
- Random samples
- Large sample sizes

## Qualitative research

- Ease of access
- Purpose driven
- Information rich respondents
- A few cases until saturation is reached



# Figure 12.1 Principles of sampling

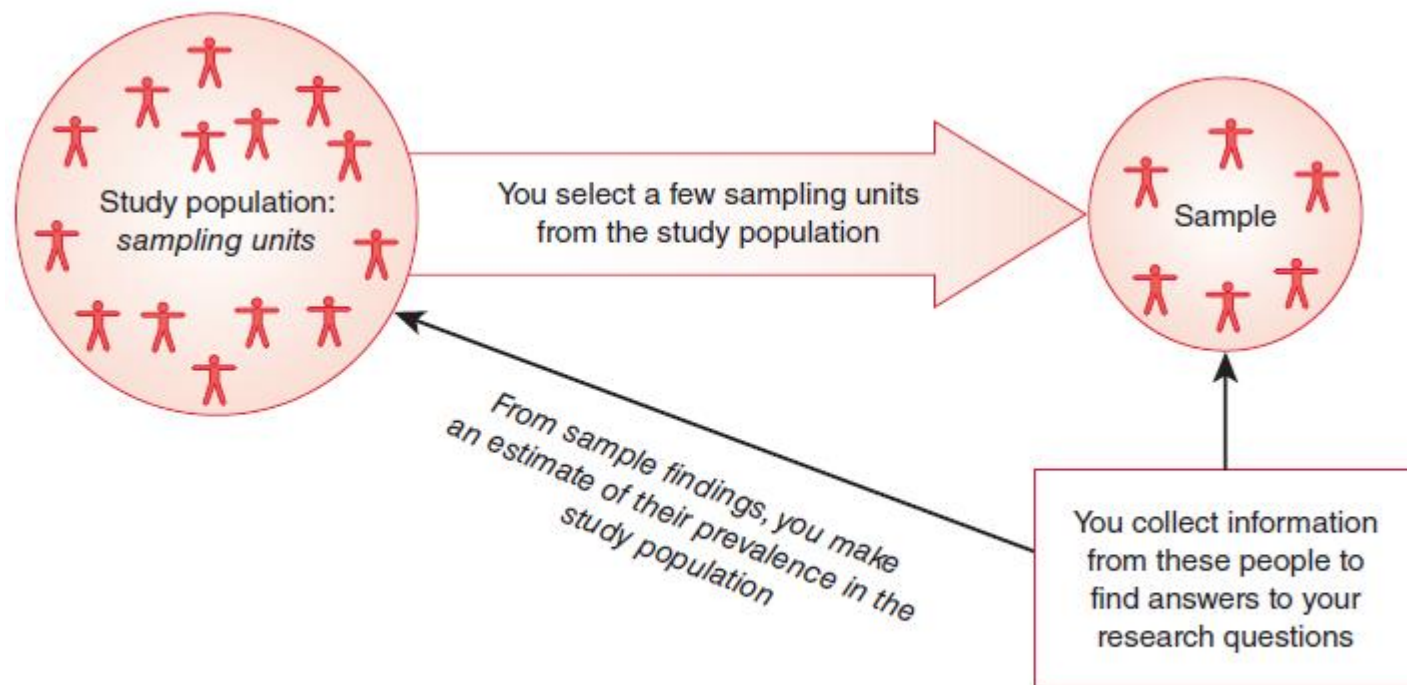


Figure 12.1 The concept of sampling



# Sampling in quantitative research

Sampling is the process of selecting a few (a sample) from a bigger group (the sampling population) to become the basis for predicting an outcome for the bigger group.

- Advantage: Researching a sample is easier
- Disadvantage: The sample and the sampling population differ



# Sampling terminology

- **Study population** is the group the sample is taken from
- **Sample size** refers to the number of items/people in the sample
- **Sampling frame** is a list of each item/person in the study population
- **Sample statistics** are the results found in the sample
- **Population parameter** are the estimates for the population from the sample statistics



# Principles of Sampling

1. *There will be a difference between the sample statistics and the true population mean, which is attributable to the selection of the units in the sample.*
2. *The greater the sample size, the more accurate the estimate of the true population mean.*
3. *The greater the difference in the variable under study in a population, for a given sample size, the greater the difference between the sample statistics and the true population mean.*



# Figure 12.2 Types of sampling

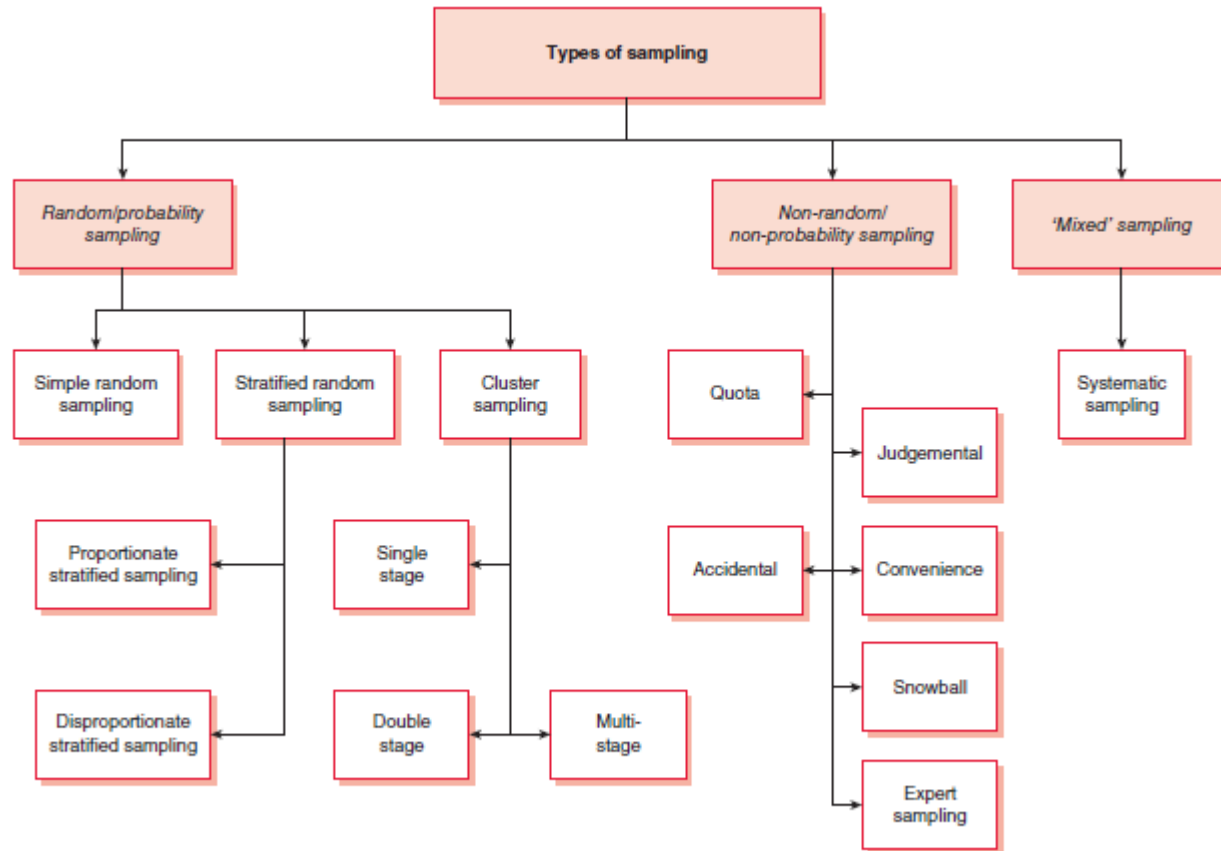


Figure 12.2 Types of sampling in quantitative research





# Random/Probability sampling designs

Each element in the sampling frame has an equal and independent chance of selection in the sample

Advantages:

- Representative of the total sampling population, the inferences drawn from such samples can be generalised to the total sampling population.
- Some statistical tests based upon the theory of probability can be applied only to data collected from random samples.



# Specific random sampling designs

- Simple random sampling (SRS)
- Stratified random
- Cluster sampling
- Systematic sampling



# Non-random/ non-probability sampling designs

- Quota sampling
- Accidental sampling
- Judgmental or purposive sampling
- Expert sampling
- Snowball sampling



# Sample size

*The greater the heterogeneity or diversity in what to be found out about, the greater the number of respondents needed to contact to reach saturation point.*

*Cause-effect studies need to consider:*

- *Level of confidence*
- *Degree of accuracy*
- *Level of variation*



# Concept of saturation point in qualitative research

- Qualitative research uses non-probability sampling
- Collecting information from a predetermined number of people
- Sampling until saturation point is reached (no new information collected)
- Guided by judgment as to who is likely to provide the 'best' information.



# Summary

- Quantitative research wants to represent the sampling population which is best achieved through random sampling
- Qualitative research uses non-random sampling with a purpose to collect the best information from the sample

