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Research Methodology

Lesson 9 – Sampling

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Communitising Technology

Objectives of this lesson

- To describe the sampling, individual case and population.

- To understand the different between probability and non-probability sampling.

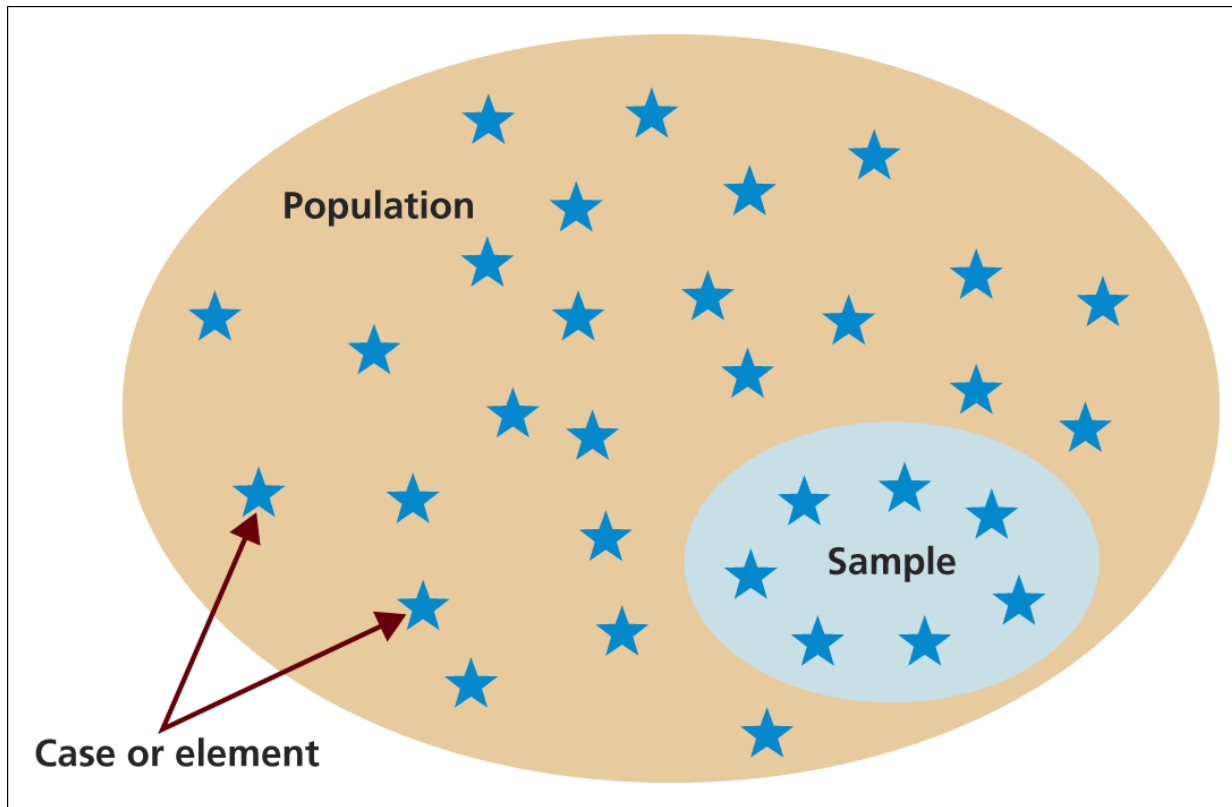- To identify four stages of probability sampling.

Synopsis

This lesson will describe the sample, individual case and population to help students to understand the proper selection of sample from a given population.

Expected outcomes

Students are expected to get crystal clear understanding on the probability and non-probability sampling technique. This lesson is also discuss the disadvantages of census as a technique of sampling selection in research.
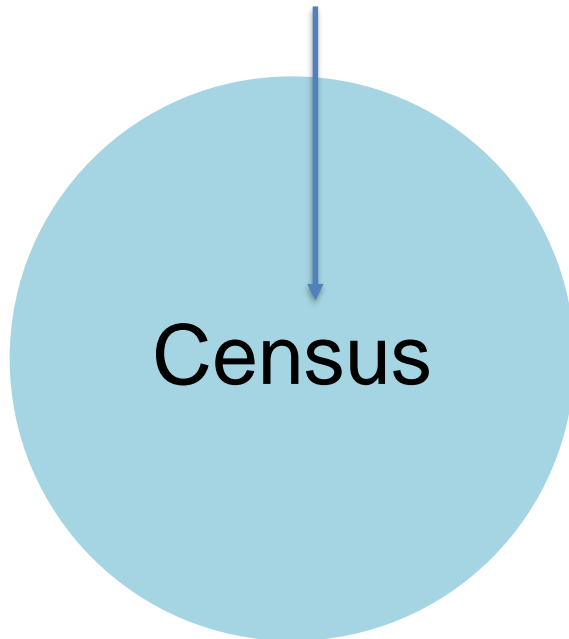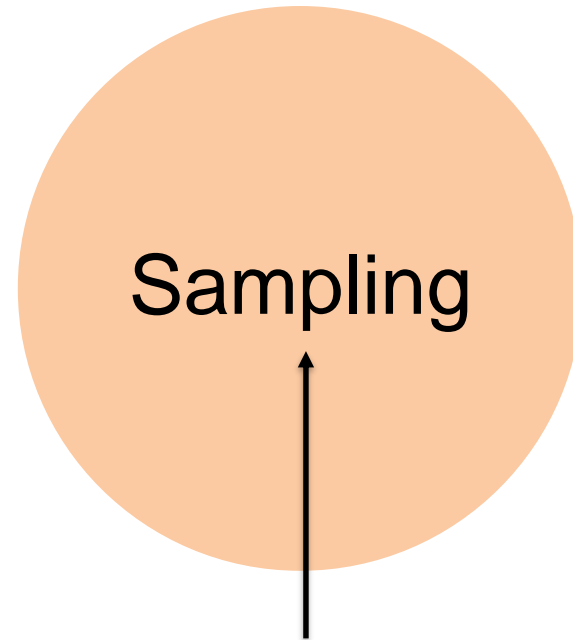
Population, sample and individual cases

Source: Saunders et al. (2009)

Census VS Sampling

All units of a given population

Census

Sampling

Selection of a subset of units from population
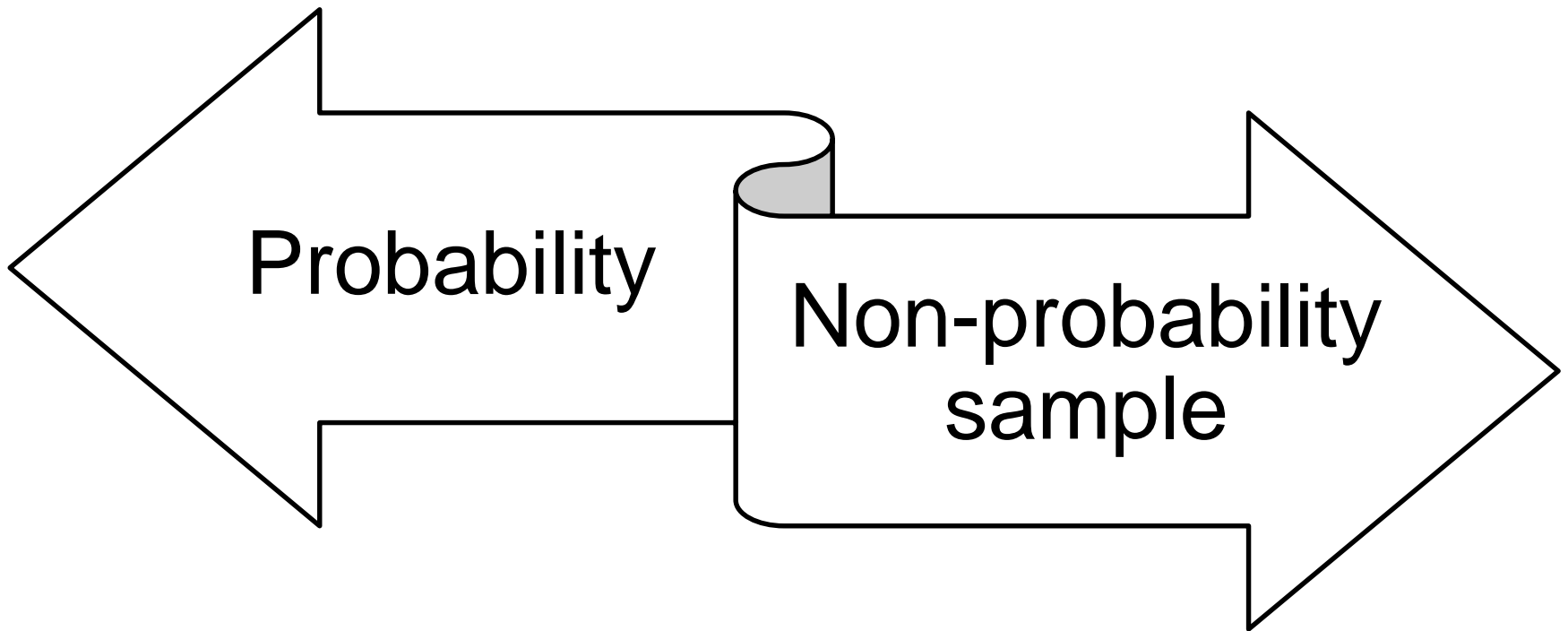
Disadvantages of census

Impracticable
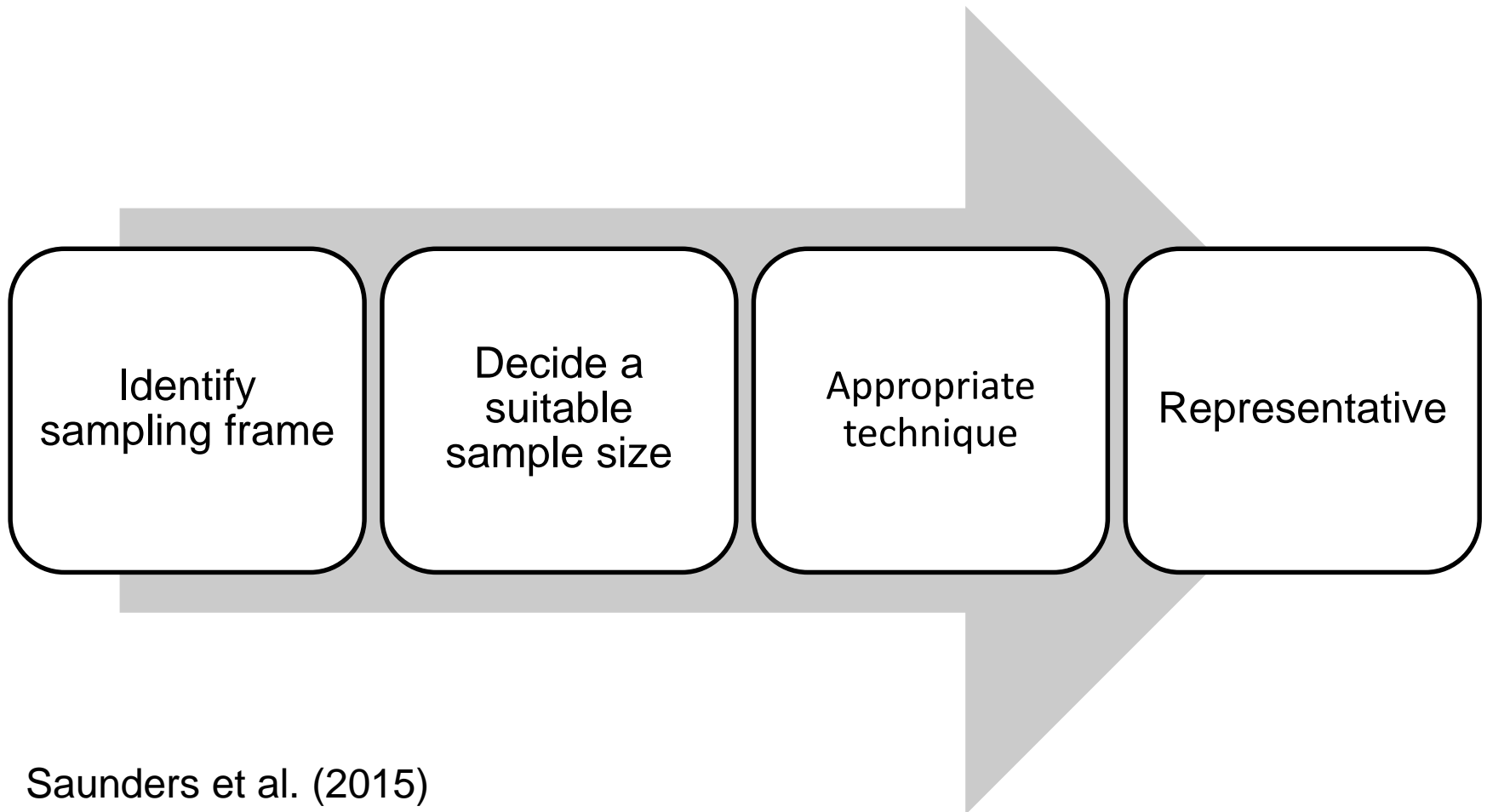
Budget constraints

Time constraints

Probability

Non-probability sample

- Probability – equal chance of case being selected is equal for entire cases (population is known)

- Non-probability – hard to judge the sampling selection from unknown population – change not equal

Probability → 4-stage process

Identify sampling frame → Decide a suitable sample size → Appropriate technique → Representative

Saunders et al. (2015)

Choice of sample size

Confidence - in the data

Margin of error

Types of analyses

Size of the sample

Sampling issues

Non-respondents

Refusals

Estimating response rate

Representative sample

Estimating sample size

Active response rate

Technique - a probability sample

- Simple random – random sample selection (using computer selecting the sample at random/ table).

- Systematic: using intervals from sampling frame

- Stratified random: divide the population using strata based.

- Cluster: before sampling, researcher need to divide the population into discrete groups.

- Multi-stage: various of data collection from cluster sampling.

Non- probability sampling

- Quota sampling (larger populations): is entirely non-random.
- Purposive sampling: use judgement to select cases
- Snowball sampling: participants are volunteered to participate.
- Self-selection sampling: allows individual to participate.
- Convenience sampling: as sample is easily available.

Summary

Sampling selection is vital part of successful of any research. Being able to identify the sampling selection technique will help students to collect information from representative population.