

# **NON-PROBABILITY SAMPLING**

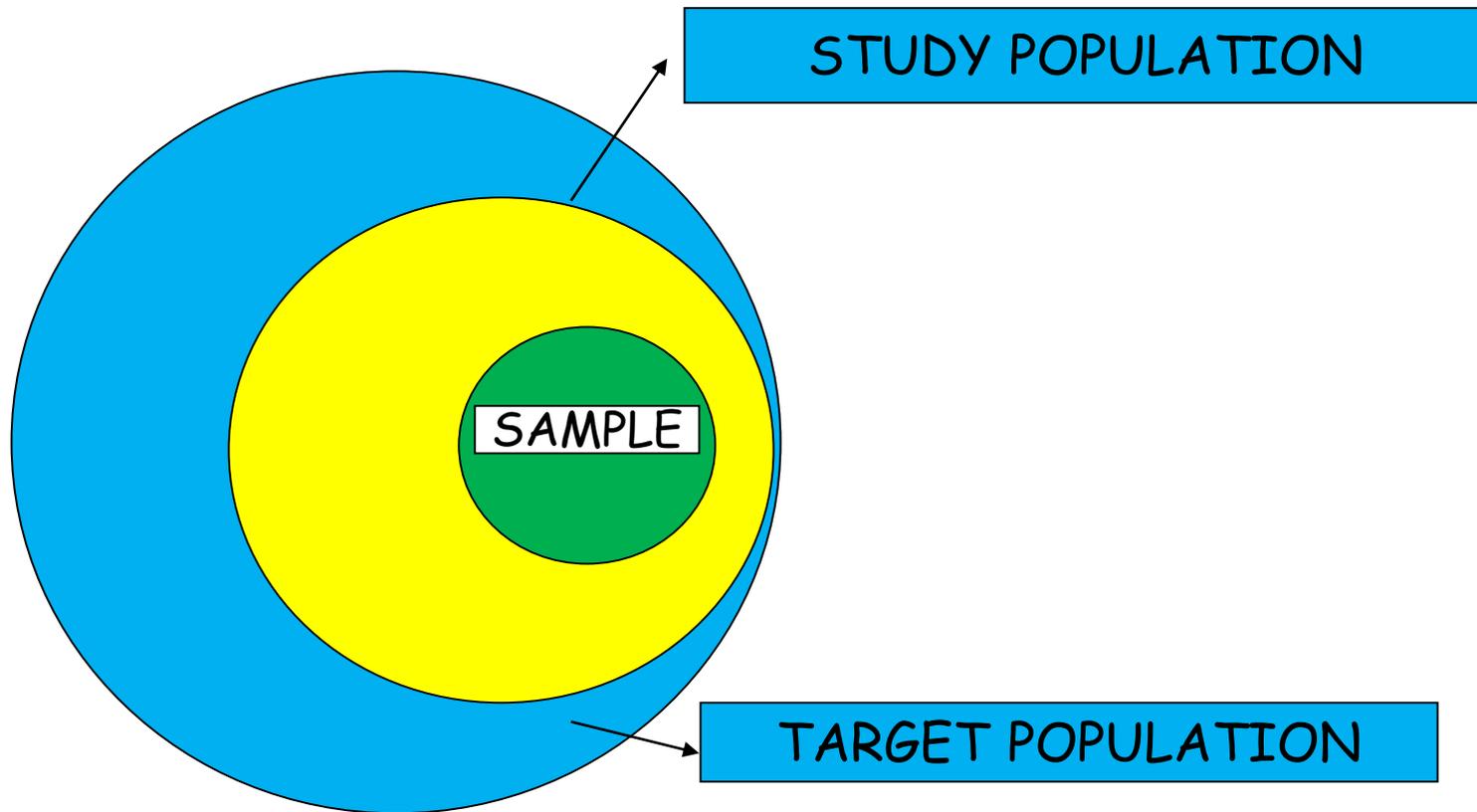


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# SAMPLING TECHNIQUES

- Categorized as Probability & Non probability
- **Probability samples**
  - Through a process of random selection
  - Every unit in the population has an equal chance of being chosen
  - Free of Bias
- **Nonprobability samples**
  - Through a process of nonrandom methods
  - Chance of selection is not known





# DIFFERENCES

	Probability Sampling	Non probability Sampling
<b>Meaning</b>	Probability sampling is a sampling technique, in which the subjects of the population get an equal opportunity to be selected as a representative sample.	Nonprobability sampling is a method of sampling wherein, it is not known that which individual from the population will be selected as a sample.
<b>Known as</b>	Random sampling	Non-random sampling
<b>Basis of selection</b>	Randomly	Arbitrarily
<b>Opportunity of selection</b>	Fixed and known	Non fixed and unknown
<b>Research</b>	Conclusive	Exploratory
<b>Result</b>	Unbiased	Biased
<b>Method</b>	Objective	Subjective
<b>Inferences</b>	Statistical	Analytical
<b>Hypothesis</b>	Tested	Generated



Technique	Strengths	Weaknesses
Convenience sampling	Least expensive, least time-consuming, most convenient	Selection bias, sample not representative, not recommended by descriptive or casual research
Judgment sampling	Low-cost, convenient, not time-consuming, ideal for exploratory research design	Does not allow generalization, subjective
Quota sampling	Sample can be controlled for certain characteristics	Selection bias, no assurance
Snowball sampling	Can estimate rare characteristics	Time-consuming
Simple random sampling	Easily understood, results projectable	Difficult to construct sampling frame, expensive, lower precision, no assurance of representativeness
Systematic sampling	Can increase representativeness, easier to implement than simple random sampling, sampling frame not always necessary	Can decrease representativeness
Stratified sampling	Includes all important sub-population, precision	Difficult to select relevant stratification variables, not feasible to stratify on many variables, expensive
Cluster sampling	Easy to implement, cost-effective	Imprecise, difficult to compute and interpret results

## NON-PROBABILITY SAMPLING

- When all the individuals of the population are not given an equal opportunity of becoming a part of the sample, the method is said to be Non-probability sampling.
- There is no probability attached to the unit of the population and the selection relies on the subjective judgment of the researcher.
- The methods of non-probability sampling:
  - **Convenience Sampling**
  - **Quota Sampling**
  - **Judgment or Purposive Sampling**
  - **Snowball Sampling**



## CONVENIENCE SAMPLING

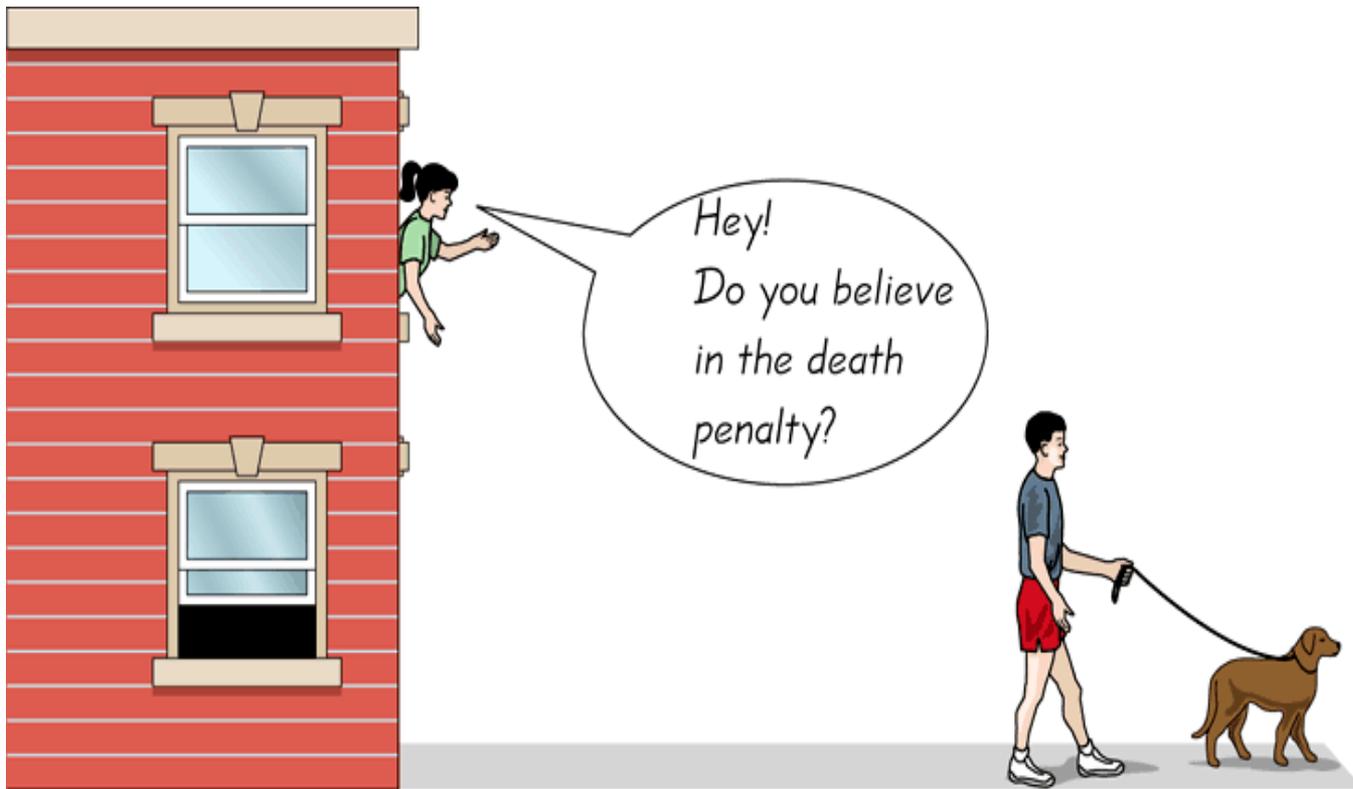
- Sometimes known as **grab** or **opportunity sampling** or **accidental or haphazard sampling**.
- A type of nonprobability sampling which involves the sample being drawn from that part of the population which is close to hand. That is, readily available and convenient.
- The researcher using such a sample cannot scientifically make generalizations about the total population from this sample because it would not be representative enough.



- For example, if the interviewer was to conduct a survey at a shopping center early in the morning on a given day, the people that he/she could interview would be limited to those given there at that given time, which would not represent the views of other members of society in such an area, if the survey was to be conducted at different times of day and several times per week.
- This type of sampling is most useful for pilot testing.
- In social science research, snowball sampling is a similar technique, where existing study subjects are used to recruit more subjects into the sample.



Use results that are easy to get



# ADVANTAGES:



## DISADVANTAGES:

- Highly vulnerable to selection bias
- Generalisability unclear
- Chance of sampling error is more
- Sample can not represent a clearly defined population



## QUOTA SAMPLING

- The population is first segmented into mutually exclusive subgroups, just as in stratified sampling.
- Then judgment used to select subjects or units from each segment based on a specified proportion.



- For example, an interviewer may be told to sample 200 females and 300 males between the age of 45 and 60.
- It is this second step which makes the technique one of non-probability sampling.
- In quota sampling the selection of the sample is non-random.
- For example interviewers might be tempted to interview those who look most helpful. The problem is that these samples may be biased because not everyone gets a chance of selection. This random element is its greatest weakness and quota versus probability has been a matter of controversy for many years



## PURPOSIVE SAMPLING

- The researcher chooses the sample based on who they think would be appropriate for the study. This is used primarily when there is a limited number of people that have expertise in the area being researched



# ADVANTAGES

- Less costly
- More readily accessible
- More convenient
- Select only those individual who are relevant to research purpose



## DISADVANTAGES

- Informants do not represent the population
- Potential for inaccuracy in the researchers criteria
- Unwillingness to help and cooperate



## SNOWBALL SAMPLING

- Snowball sampling or chain-referral sampling is defined as a non-probability sampling technique in which the samples have traits that are rare to find.
- This is a sampling technique, in which existing subjects provide referrals to recruit samples required for a research study.



- For example, if you are studying the level of customer satisfaction among the members of an elite country club, you will find it extremely difficult to collect primary data sources unless a member of the club agrees to have a direct conversation with you and provides the contact details of the other members of the club.



## ADVANTAGES OF SNOWBALL SAMPLING

- **It's quicker to find samples:** Referrals make it easy and quick to find subjects as they come from reliable sources. An additional task is saved for a researcher, this time can be used in conducting the study.
- **Cost effective:** This method is cost effective as the referrals are obtained from a primary data source. It's is convenient and not so expensive as compared to other methods.
- **Sample hesitant subjects:** Some people do not want to come forward and participate in research studies, because they don't want their identity to be exposed. Snowball sampling helps for this situation as they ask for a reference from people known to each other. There are some sections of the target population which are hard to contact.



- For example, if a researcher intends to understand the difficulties faced by HIV patients, other sampling methods will not be able to provide these sensitive samples. In snowball sampling, researchers can closely examine and filter members of a population infected by HIV and conduct a research by talking to them, making them understand the objective of research and eventually, analyzing the received feedback.



# DISADVANTAGES OF SNOWBALL SAMPLING:

- **Sampling bias and margin of error:** Since people refer those whom they know and have similar traits this sampling method can have a potential sampling bias and margin of error. This means a researcher might only be able to reach out to a small group of people and may not be able to complete the study with conclusive results.
- **Lack of cooperation:** There are fair chances even after referrals, people might not be cooperative and refuse to participate in the research studies.



THANK YOU

