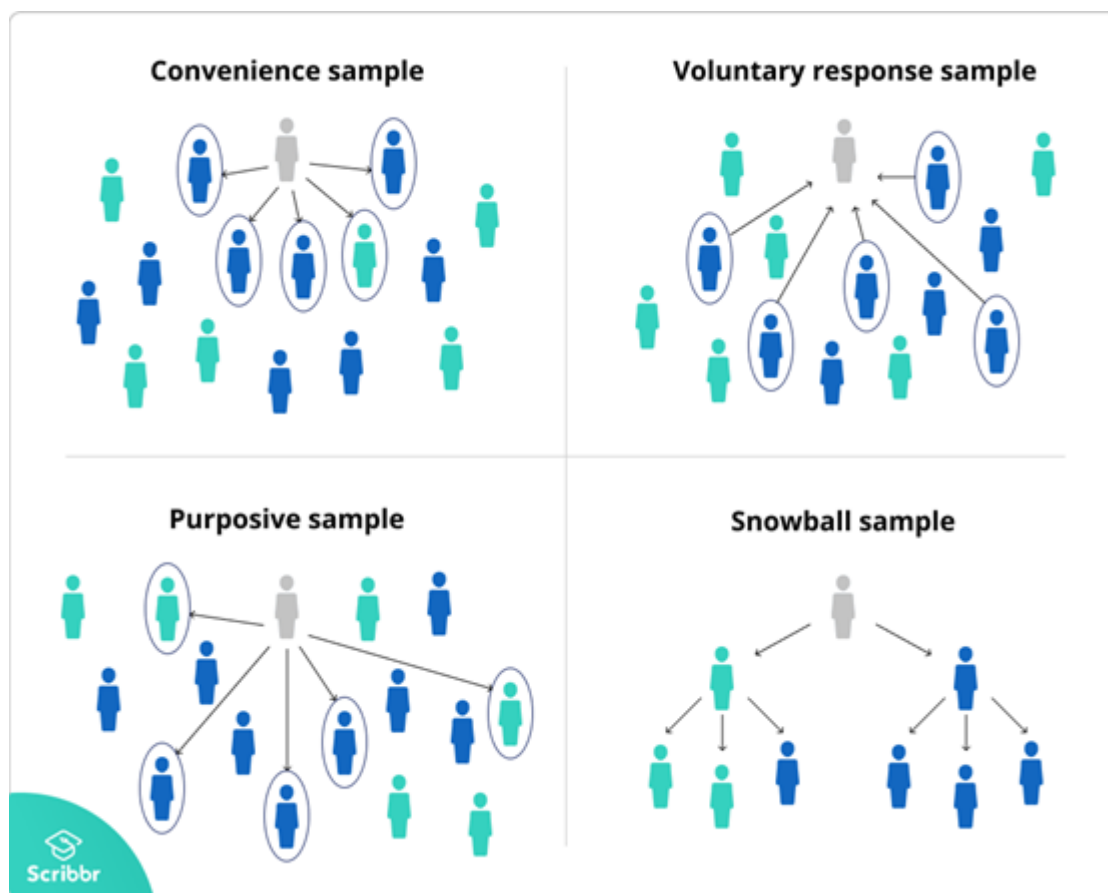


What is non-probability sampling?

Definition: Non-probability sampling is defined as a sampling technique in which the researcher selects samples based on the subjective judgment of the researcher rather than random selection. It is a less stringent method. This sampling method depends heavily on the expertise of the researchers. It is carried out by observation, and researchers use it widely for qualitative research.

Non-probability sampling is a method in which not all population members have an equal chance of participating in the study, unlike probability sampling. Each member of the population has a known chance of being selected. Non-probability sampling is most useful for exploratory studies like a [pilot survey](#) (deploying a survey to a smaller sample compared to pre-determined sample size). Researchers use this method in studies where it is impossible to draw random probability sampling due to time or cost considerations and when access to a full population is limited or not needed.

Types of non-probability sampling:



Here are the types of non-probability sampling methods:

1. Convenience sampling:

Convenience sampling is a non-probability sampling technique where samples are selected from the population only because they are conveniently available to the researcher. Researchers choose these samples just because they are easy to recruit, and the researcher did not consider selecting a sample that represents the entire population.

You can see this type being used in public places, like malls or school campuses, where it's easy to meet and select people as they 'go by' based on the characteristics and criteria that you think are important.

It is a cheap and quick way to collect people into a sample and run a survey to gather data. Because of this, it is usually used for quick user opinion polls or pilot testing.

Convenience sampling also has two subtypes:

Consecutive sampling

(also known as total enumerative sampling)

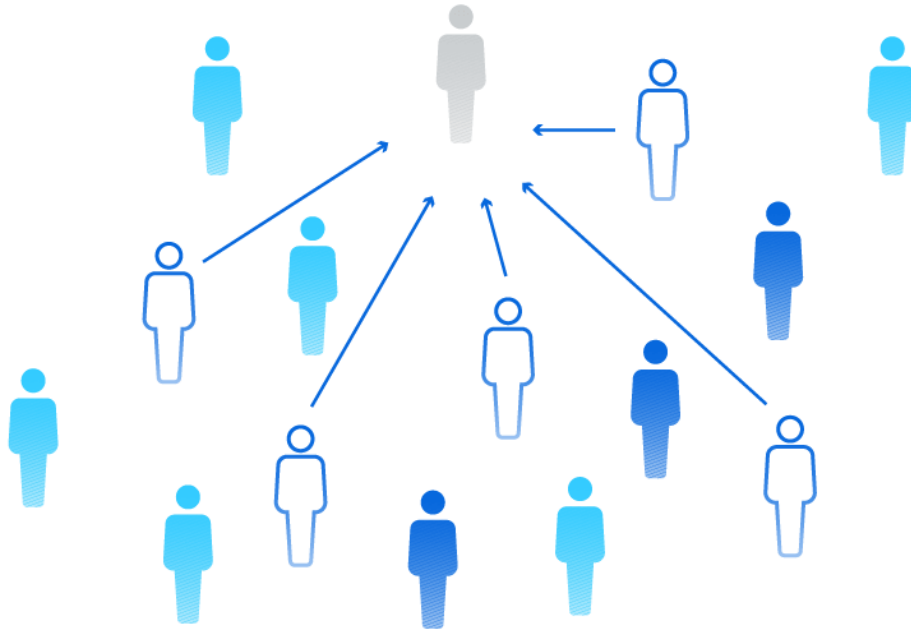
Consecutive sampling is the process of doing research with the sample members that meet the inclusion criteria and are conveniently available. You conduct research one after the other until you reach a conclusive result. Samples are chosen based on availability and each result is analyzed before you move onto the next sample or subject.

Self-selection (also known as volunteer sampling)

The self-selection sampling technique uses volunteers to fill in the sample size until it reaches a specified amount.

This requires less work contacting people, as volunteers sign up and opt-in to be part of the research if they meet your desired criteria. The insights gained will likely be based on strongly held opinions that these volunteers want to share. An example is medical research candidates that opt into medical studies because they fit the criteria of the research study and want to be involved for health reasons.

Self-selection sample



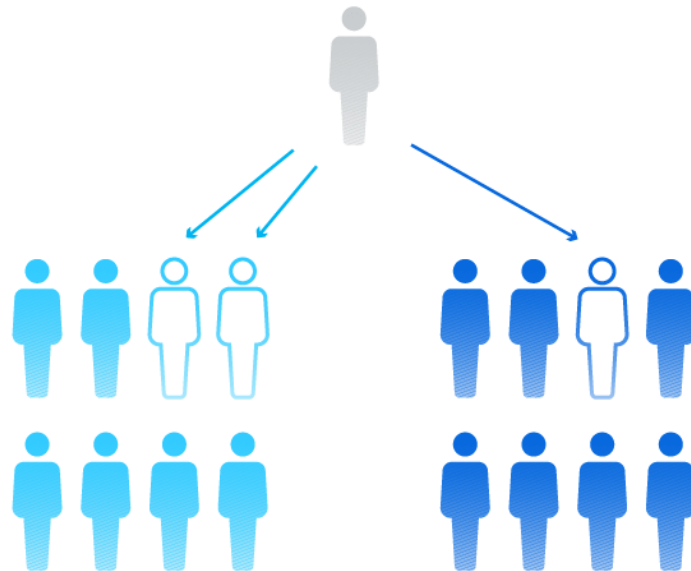
2. Quota sampling (also known as dimension sampling)

Quota sampling is a non-probability sampling technique similar to stratified sampling (in probability sampling). In this method, the population is split into segments (strata) and you have to fill a quota based on people who match the characteristics of each stratum.

There are two types of quota sampling:

1. Proportional quota sampling gives proportional numbers that represent segments in the wider population. For this, the population frame must be known.
2. Non-proportional quota sampling uses stratum to divide a population, though only the minimum sample size per stratum is decided.

Quota sampling



However, quota sampling techniques differ from probability-based sampling as there is no commitment from you to give an equal chance of participants being selected for the sample. Instead, you keep reaching out until the number in the stratum has been reached.

In general, quota sampling is conscious of the divisions in a population but still gives deep insights into each stratum.

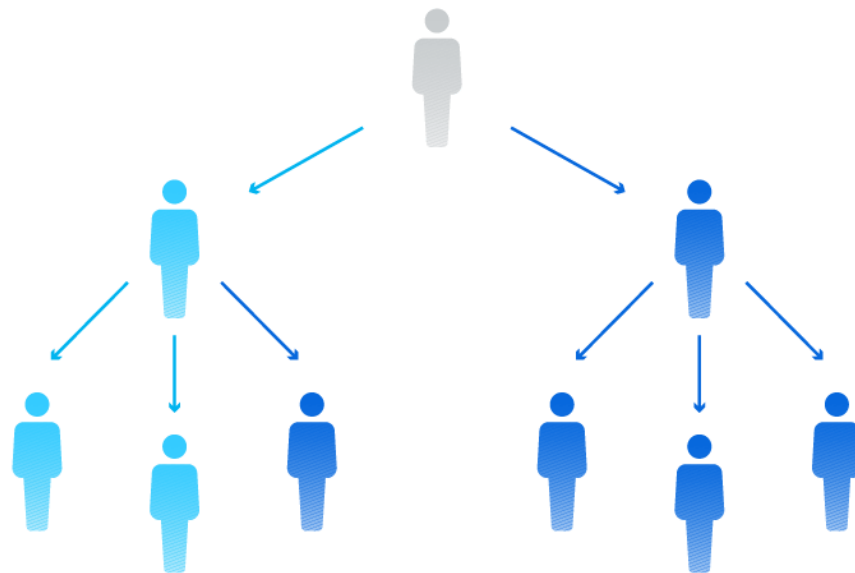
3. Snowball sampling (also known as referral, respondent-driven, or chain referral sampling)

Snowball sampling is a non-probability sampling type that mimics a pyramid system in its selection pattern. You choose early sample participants, who then go on to recruit further sample participants until the sample size has been reached. This ongoing pattern can be perfectly described by a snowball rolling downhill: increasing in size as it collects more snow (in this case, participants).

This type of sampling is useful for getting in touch with hard-to-access communities of people, like sex workers, homeless people, or teenagers. An example of snowball sampling is recruiting sample members through social media channels who then promote your work to those in their network.

So, we can say that it helps researchers find a sample when they are difficult to locate. Researchers use this technique when the sample size is small and not easily available

Snowball sample



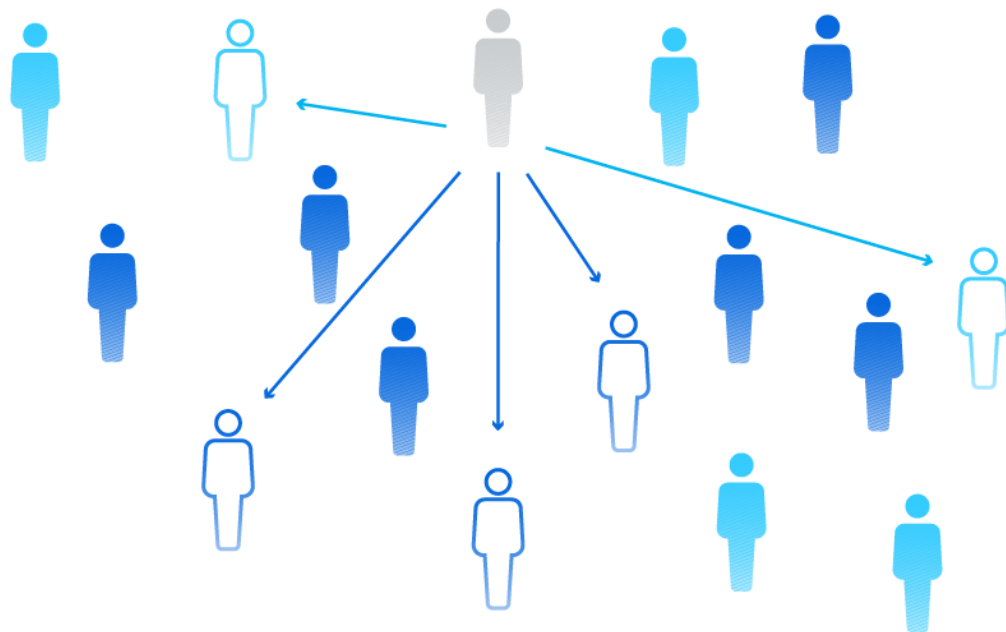
With this model, you are relying on who your initial sample members know to fulfill your ideal sample size. This can be quick to do when the chain of members develops past the first few levels. However, it does rely on the first members referring the research work to others.

4. Purposive sampling (also known as judgmental, selective, or subjective sampling)

Purposive sampling is a type of non-probability sampling where you make a conscious decision on what the sample needs to include and choose participants accordingly. In this way, researchers select the samples based purely on the researcher's knowledge and credibility. In other words, researchers choose only those people who they deem fit to participate in the research study. Judgmental or purposive sampling is not a scientific method of sampling, and the downside to this sampling technique is that the preconceived notions of a researcher can influence the results and There are obvious bias issues with this type of sample selection method, though you have all the freedom to create the sample to fit the needs of your research.

That said, your credibility is at stake; even the smallest of mistakes can lead to incorrect data. However, because this is a fast and easy way to source a sample, you can redo the sample quite easily if there is a mistake.

Purposive sample



Some subtypes exist:

Heterogeneity sampling (also known as maximum variation sampling or sampling for diversity)

This is where you try to represent the widest range of views and opinions on the target topic of the research, regardless of proportional representation of the population. The main aims are to:

1. make the research results as rich as they can be
2. look at a topic from all perspectives

As such, having [a broad spectrum of ideas from sample participants](#) is key.

Homogeneous sampling (also known as modal instance sampling)

The opposite of heterogeneity sampling, homogenous sampling aims to get a sample of people who have similar or identical traits. For example, they might share the same views, beliefs, age, location, or employment. The traits selected are those that are useful to you in the research.

Instead of trying to see a topic from all angles, you focus on the research problem with a group of people who see it the same way and then go into detail.

Deviant sampling (also known as extreme sampling)

This is where you choose the sample based on cases or participant characteristics that are unusual or special in some way, such as outstanding successes or notable failures.

By allowing a group of non-traditional sample members to explore a topic, the insights will be unique and unpredictable, meaning that this could be valuable for 'thinking outside the box'. Of course, you need to put in extra effort to find, connect and manage relationships with these sample members.

Expert sampling

When research goals call for a panel of specialists to help understand, discuss and elicit useful results, expert sampling could be useful. With expert sampling, the sample is chosen based on the knowledge of prospective sample members in a given area. This is best used in complex or highly technical research projects and where information is uncertain or unknown, though it can be used to validate other research findings by having an 'expert' vet the results.

Non-probability sampling examples

Here are simple examples of non-probability sampling to understand the subject better.

1. An example of convenience sampling would be using student volunteers known to the researcher. Researchers can send the survey to students belonging to a particular school, college, or university, and act as a sample.
2. In an organization, for studying the career goals of 500 employees, technically, the sample selected should have proportionate numbers of males and females. Which means there should be 250 males and 250 females. Since this is unlikely, the researcher selects the groups or strata using quota sampling.

When to use non-probability sampling?

- Use this type of sampling to indicate if a particular trait or characteristic exists in a population.
- Researchers widely use the non-probability sampling method when they aim at conducting qualitative research, pilot studies, or exploratory research.
- Researchers use it when they have limited time to conduct research or have budget constraints.
- When the researcher needs to observe whether a particular issue needs in-depth analysis, he applies this method.

- Use it when you do not intend to generate results that will generalize the entire population.

Advantages of non-probability sampling

Here are the advantages of using the non-probability technique

- Non-probability sampling techniques are a more conducive and practical method for researchers deploying surveys in the real world. Although statisticians prefer probability sampling because it yields data in the form of numbers, however, if done correctly, it can produce similar if not the same quality of results and avoid sampling errors.
- Getting responses using non-probability sampling is faster and more cost-effective than probability sampling because the sample is known to the researcher. The respondents respond quickly as compared to people randomly selected as they have a high motivation level to participate.

Difference between non-probability sampling and probability sampling:

Non-probability sampling	Probability sampling
Sample selection based on the subjective judgment of the researcher.	The sample is selected at random.
Not everyone has an equal chance to participate.	Everyone in the population has an equal chance of getting selected.
The researcher does not consider sampling bias.	Used when sampling bias has to be reduced.

Useful when the population has similar traits.	Useful when the population is diverse.
The sample does not accurately represent the population.	Used to create an accurate sample.
Finding respondents is easy.	Finding the right respondents is not easy.