**Sampling**

Sampling means the process of selecting a part of the population. A population is a group of people that is studied in a research. These are the members of a town, a city or a country. It is difficult for a researcher to study the whole population due to limited resources e.g. time, cost and energy. Hence, the researcher selects the part of the population for his study, rather than studying the whole population. This process is known as sampling. It makes the research activity manageable and convenient for the research.

**Types of sampling**

There are two major types of sampling i.e. probability and non-probability sampling, which are further divided into sub-types as follows:

1. Probability sampling
2. Simple random sampling
3. Stratified random sampling
4. Systematic sampling
5. Cluster sampling
6. Multi-stage sampling
7. Non-probability sampling

(a)Purposive sampling

(b) Convenience sampling

(c) Quota sampling

**Probability sampling**

Probability sampling is a type of sampling where each and every units of the population has equal and independent chances of being included in the sample. When the population is highly homogeneous, its each member has a known chance of being selected in the sample. For example, if we want to pick some sugar from any part of a bag containing sugar, the selected part will have similar characteristics. In such a case, each member has a known chance of being selected in a sample. Hence, the sample collected from any part of the bag containing sugar will be a true representative of whole sugar. In such a situation, probability sampling is adopted.

1. **Simple random sampling**

In simple random sampling, the members of the sample are selected randomly and purely by chance. As every member has an equal chance of being selected in the sample, random selection of the members does not affect the quality of the sample. Hence, the members are randomly selected without specifying any criteria for selection. Simple random sampling is a suitable technique for a population which is highly homogeneous.

1. **Stratified sampling**

In stratified random sampling, first, the population is divided into sub-groups called strata and then members from each sub-group are selected randomly. This technique is adopted when the population is not highly homogeneous. Hence , first the population is divided into homogeneous sub-groups on the basis of similarities of the members. Then, members from each sub- group are randomly selected. The purpose is to address the issue of less homogeneity of the population and to make a true representative sample.

1. **Systematic sampling**

In systematic sampling a member occurring after a fixed interval is selected. The member occurring after fixed interval is known as Kth element. For instance, if a researcher wants to select member occurring after every ten members, the Kth element become 10th element. It means for selecting a sample from 100 members will be as follows:

Sample = [ 10, 20, 30, 40, 50, 60, 70, 80, 90, 100]

As it follows a systematic technique for selecting members, it is called systematic sampling.

The Kth element or fixed interval depends upon the size of the population and desired sample. For example, if we want to select a sample of 20 members from the population of total 1000 member. We will divide total population over the desired sample e.g. 1000/20 = 50. It means we will select every 50 th member from the population to make a sample of 20 members.

1. **Cluster sampling**

In cluster sampling, various segments of a population are treated as clusters and members from each cluster are selected randomly. Though it seems similar to stratified sampling but there is difference in both. In stratified sampling, the researcher divides the population into homogeneous sub-groups on the basis of similar characteristics e.g. age, sex, profession, religion and so on. On the other hand , in cluster sampling, the population does not divides the population into sub-groups or cluster but randomly select from already existing or naturally occurring sub-groups(clusters) of the population e.g. families within a society, towns within a community as a cluster. Similarly, a researcher may treat each town within a big district as a cluster. Unlike stratified sampling where the focus is on ensuring homogeneity, in cluster sampling the focus is on ensuring the convenience for a research study. Each cluster may be more or less homogeneous but the focus is on tactfully and conveniently studying the population in terms of clusters.

1. **Multistage sampling**

Multistage sampling is a complex form of cluster sampling. In multistage sampling, each cluster of the sample is further divided into smaller clusters and members are selected from each smaller clusters randomly. It is called a multistage sampling as it involves many stages. First, naturally occurring groups in a population are selected as clusters, then each cluster is divided into smaller clusters and then from each smaller cluster members are selected randomly. Even the smaller cluster can be further divided into smallest cluster depending upon the nature of the research.

**NON-PROBABILITY SAMPLING**

Non-probability sampling is a type of sampling where each member of the population does not have known probability of being selected in the sample. In this type of sampling, each member of the population does not get an equal chance of being selected in the sample. Non-probability sampling is adopted when each member of the population can not be selected or the researcher deliberately wants to choose members selectively. For example, to study impacts of domestic violence on children, the researcher will not interview all the children but will interview only those children who are subjected to domestic violence. Hence, the members can not be selected randomly. The researcher will use his judgment to select the members.

1. **Purposive sampling**

It is a type of sampling where the members for a sample are selected according to the purpose of the study. For example, if a researcher wants to study the impact of the drugs abuse on health. Every member of the society is not the best respondent for this study. Only the drug addicts can be the best respondents for this study as they have undergone impacts of drug abuse on their health and they can provide the real data for this study. Hence, the researcher deliberately selects only the drug addicts as respondents for his study.

1. **Convenience Sampling**

It is a type of sampling where the members for a sample are selected on the basis of their convenient accessibility. Only those members are selected which are easily accessible to the researcher. For example, a researcher may visit a college or a university and get questionnaires filled in by volunteer students. Similarly, a researcher may stand in a market and interview the volunteer persons.

1. **Quota Sampling**

In this type of sampling, the members are selected according to some specific characteristics chosen by the researcher. These specific characteristics serve as a quota for selection of members of the sample. Hence, the members are selected on the basis of these specific characteristics such as age, sex, religion, ethnicity and so on.