SAMPLING TECHNIQUES

POPULATION & SAMPLE

POPULATION

It means all members that meet a set of specifications or a specified criterion. For eg.Higher Secondary Students of Kerala state.

SAMPLE

When only some elements are selected from a population, we refer to that as a sample. It is critical and an error at this stage will destroy the integrity of the research. It should truly represent the population.

QUANTITATIVE RESEARCH & QUALITATIVE RESEARCH

1) Quantitative - Probability & Non probability sampling, Mostly Probability (Random & Non random)

2) Qualitative - Non probability

In probability sampling every member of the target population has a known chance of being included in the sample.

If the researcher is interested in generalizing the findings derived from the sample to the general population, then probability sampling is far more useful and precise.

PROBABILITY SAMPLING TECHNIQUES

Simple Random

Systematic

Stratified Random

Cluster

SIMPLE RANDOM SAMPLING

It is the easiest form of probability sampling. Either a lottery method or using a computer it can be done. Giving a number to each member of the population and then selecting. **Every member of the population has an equal chance of being selected.**

ADVANTAGES – Easy, fair and representative.

DISADVANTAGE – List of population should be complete and up to date. May not be practical for a very large population.

SYSTEMATIC SAMPLING

It involves selection of every nth subject in the population to be in the sample.

If you had a population of 500 students and you want to select 50 students as the sample, then we select every 10th member. We can start a random starting point on the list. The starting point in this case will be a number between 1 and 10. To select the starting number random selection can be used.

STRATIFIED RANDOM SAMPLING

It involves the division of population into smaller sub-groups known as strata. The strata are formed based on members' shared attributes or characteristics such as type of family, family income etc. It is also known as <u>proportional random sampling or quota random sampling</u>. Population is divided into homogeneous groups. Sample size from each strata should be proportional to the population.

It makes sure that every category had a representation.

But dividing into strata and the basis of division may find difficult.

CLUSTER SAMPLING

The population is divided into different groups or clusters. Then the required clusters are selected on a simple random or systematic sampling method. Here all the subjects from the selected cluster will be included in the sample.

For example you want to study parenting style patterns of standard 9 students of a particular school. Population is 600 and want to select a sample of 50 and there are 12 divisions each comprising 50 students. Then you select a division on a random basis and conduct study in that particular division.

Non probability sampling

Individuals are selected based on non-random criteria, and not every individual has a chance of being included and so has a higher risk of sampling bias.

NON PROBABILITY SAMPLING

Convenience sampling

Purposive (judgemental) sampling

Quota sampling

Consecutive sampling

Snowball sampling

CONVENIENCE SAMPLING

We select samples because they are conveniently available to the researcher.,easy to recruit. the only criteria is whether the participants agree to participate.

For example, you want to study the consumer behaviour at a supermarket. You reach there and collect the required information from the consumers who are present there at that time provided they are willing to participate.

It has a disadvantage of sampling error and lack of representativeness.

PURPOSIVE SAMPLING

In **Purposive or judgemental sampling we** choose only those people who are deemed to be fit to participate in the research study. It is the discretion of the researcher. It may not be statistically representative. The researchers get a lot of information from the data. Time and cost effective.

It is prone to researchers bias.

For example if a researcher wants to study about the effective teaching methods to teach poetry, he may approach the teachers whom the researcher see as appropriate.

QUOTA SAMPLING

It is a nonprobabilistic version of stratified sampling. Population is first segmented into **mutually exclusive** *sub-groups.Then judgment is used to select the subjects or units from each segment based on a specified proportion. it allows the researchers to sample a subgroup that is of great interest to the study. But only the selected traits of the population were taken into account in forming the subgroups.*

There is a nonrandom sample selection which differs it from stratified sampling.

CONSECUTIVE SAMPLING

Here every subject meeting the criteria of inclusion is selected until the required sample size is achieved.

If a researcher is unable to obtain conclusive results with one sample, he can depend on the second sample and so on for drawing conclusive results.

SNOWBALL SAMPLING

It helps researchers to find a sample when they are difficult to locate, Once the researchers find suitable subjects, he asks them for assistance to seek similar subjects to form a considerably good size sample.

If you want to study about the living conditions of homeless people in a certain town and the researcher finds it difficult to find the sample, he finds one sample and ask him to refer another person. This process continues till he reaches the required sample size.

The Difference

PROBABILITY SAMPLING

- sample selected at random.
- Everyone in the population has an equal chance of getting selected.
- Used to reduce sampling bias
- Gets more accurate sample.

NON PROBABILITY SAMPLING

- selection based on the subjective judgment of the researcher.
- Not everyone has an equal chance to participate
- does not consider sampling bias
- sample does not accurately represent the population.

CHOOSING A RIGHT SAMPLING TECHNIQUE IS A CRUCIAL ELEMENT TO VALIDATE THE RESEARCH.