

Sample Techniques:

1. **Simple Random Sampling:** In this technique, each individual in the population has an equal chance of being selected. This can be done using methods like random number generators or drawing lots.
2. **Stratified Sampling:** The population is divided into subgroups or strata based on certain characteristics (e.g., age, gender, income). Then, a random sample is taken from each stratum in proportion to its representation in the population. This technique ensures representation from each subgroup.
3. **Systematic Sampling:** In this method, the researcher selects every "kth" individual from the population after randomly selecting a starting point. For instance, if every 10th person is selected and the starting point is chosen randomly, it creates a systematic sample.
4. **Cluster Sampling:** The population is divided into clusters or groups, and a random sample of clusters is selected. Then, all individuals within the chosen clusters are included in the sample. This technique is useful when the clusters resemble the larger population.
5. **Convenience Sampling:** This involves selecting individuals who are easiest to reach or obtain. While it's convenient, it may introduce bias as it might not represent the population accurately.
6. **Purposive Sampling:** Also known as judgmental or selective sampling, this technique involves intentionally selecting specific individuals who are relevant to the research question. This is often used in qualitative research.
7. **Snowball Sampling:** Primarily used in research involving hard-to-reach populations, this technique starts with a small number of individuals and then expands the sample by asking participants to refer others who meet the criteria.
8. **Quota Sampling:** Similar to stratified sampling, the population is divided into subgroups. However, instead of random selection, individuals are non-randomly chosen from each subgroup until the required quota is met.
9. **Multistage Sampling:** This combines different sampling methods. For example, it might involve selecting clusters using cluster sampling, then selecting individuals from within those clusters using simple random sampling.
10. **Random Sampling with Replacement:** In this method, after an individual is selected and included in the sample, they are put back into the population before the next selection. This allows for the possibility of an individual being selected more than once.

11. **Random Sampling without Replacement:** In this method, once an individual is selected and included in the sample, they are not put back into the population. This ensures that each individual can only be selected once.