

C-25: Comparing Probability, Purposive and Mixed Method Sampling Strategies

Dimension	Probability Sample	Purposive sampling	Mixed methods
Names	Scientific sampling, random sampling, QUANT sampling	Purposeful sampling Nonrandom sampling QUAL sampling	Mixed methods
Overall purpose	To generate a sample that will address QUANT research questions	To generate a sample that will address QUAL research questions	To generate a sample that will address research questions.
Generalizability	To generalize findings to a defined target population (such as all low-income households)	More limited transferability based on judgmental considerations. Some QUAL evaluators question the appropriateness of generalization from research findings.	Focusing on external validity issues for some components of the evaluation and transferability issues for others
Techniques	Simple, stratified, cluster*, random-route*, quota sampling*	There is a wide range of sampling techniques including: convenience; typical case and representative samples; quota*; random- route*; cluster*; unique, deviant, extreme and negative cases; range; snowball; critical case; and reputational samples.	All of the techniques used for probability and purposive sampling.
Rationale for selecting cases	Selection of cases that are together representative of the total population. Random selection means that many cases will have a low information value	To address specific purposes related to the research questions. Each case is selected to address a particular set of questions so that each case has a high information content/value.	Representativity for some components and depth and richness for others
Sample size	For social science research samples will often include 500+ cases. For psychological and some kinds of medical and educational research the minimum size will often be set at 50+.	Usually small, often fewer than 30 cases.	There will often be multiple samples with size being determined by whether the purpose is of a particular component is more QUANT or QUAL. More rigorous size estimation procedures may be

			used for selecting quota samples, case studies, participants in focus groups etc. to ensure a minimum level of statistical representativity.
Determinants of sample size	Sample size is estimated to achieve a given level of statistical precision defined in terms of the estimated effect size and required power of the test.	Size is determined judgmental and where time and resources permit researchers continue to sample more cases until no new information is being obtained.	Randomization size estimation procedures will be used for QUANT components. The size of purposive samples will be determined by combining normal QUAL criteria with also ensuring that samples are large enough to ensure general comparability with QUANT samples (when required).
Depth/breadth of information per unit	Focuses on breadth of information and the ability to provide estimates for the total population of interest	Focuses on depth of information	Combining depth and breadth.
When is the sample selected	Before data collection begins	Before the study begins, during data collection or after the initial round of data collection has been completed. Sequential sampling can continue for as long as deemed necessary by the researcher.	The overall sampling strategy will normally be defined before data collection begins, but sub-samples may be identified as the analysis evolves. questions
Selection method	Using statistical formula	Judgmental	An overall sampling strategy must be developed with different subsamples being generated from this. It is essential to ensure that procedures ensure the different samples are comparable.
Sampling frame	Formal sampling frame covering the whole population of interest. For considerations of time and cost an existing sampling frame (such as a list of families registered with an agency) may be used.	Judgmental. Based on advice from experts combined with researcher's judgment and possibly checked through rapid exploratory studies (for example when the sampling unit is the community).	A master sampling frame from which different sub-samples are generated

Note: * These techniques may be considered as random or purposive depending on how they are applied.

Source: Adapted from Teddlie and Tashakkori 2008 Table 8.1