

Sampling Procedure

Definition

- **Sample:** a portion of the entire group (called a population)
- **Sampling procedure:** choosing part of a population to use to test hypotheses about the entire population. Used to choose the number of participants, interviews, or work samples to use in the assessment process.
- If the sample data will be generalized to reflect the population, statistical selection processes should be used, e.g. random or stratified sampling.

Types of Sampling Procedures

- **Purposeful-** choose subjects that you believe will be able to provide you with important information. Types of purposeful sampling: “maximum variation”, “typical case”, “critical case” and “extreme or deviant case” (Patton, 1989, pg 100-107).
- **Key informant-**a specific person that you believe will give you the most information-sometimes used to develop interview questions or to begin snowball sampling.
- **Snowball-**you ask the participants to provide you with names of those that will be able to provide you with important information.
- **Convenience-** simply asking anyone to whom you have easy access. Avoid this if possible.
- **Random table/random selection** - when each person of the population has an equal chance of been selected. Selection is based on random procedure such as using random table of numbers. (Choosing every fifth person is NOT a random selection.)
- **Stratified sampling** - “stratified” means choosing from various sub-groups. The population is divided into subpopulations and random samples are taken of each subpopulation. For example, stratified by gender. If the population has 25% females and 75% males, the sample should be chosen randomly by subpopulations and consist of 25% females and 75% males.
- **Whole population** - the entire population is used. (e.g., entire course, entire university, all students within a program, etc). This is especially true if the population is small.

How Many To Choose

- Is the sample reflective of the variation of the group you are interested in? If you are interested in differences between males and females, will your sample provide sufficient data on both males and females? (Seidman, 1998)
- Assessment is used mostly for program improvement and usually not for scientific research of effects on student learning. Therefore, if the number of students in the course (population is a course in this example) is between 25-100, then use the entire student population for that course. If the course has multiple sections, take a sample from the various sections to equal between 50-100.
- For statistical confidence and uses for generalization, then calculate the exact sample size needed with a sample size calculator. ([Sample Size Calculator](#))

- “How many different assignments, homework, reports and tests from the course do I need to collect?” Consider this Principle of Good Practice for Assessing Student Learning: “Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.”

Tips to ensure Quality

- Always consider how the data will be used. Carefully consider the costs of using an incorrect sample. In addition to monetary costs, there could be political or public relations fallout. If the costs of choosing a poor sample are high, choose a higher degree of statistical confidence and a larger sample.
- If you are choosing your sample to participate in an assessment method, estimate the possibility of how many won't participate. For example, for surveys, you might expect a 50% response rate. Therefore, the sample size will need to reflect your anticipated participation rate. If you expect low rate, increase initial sample. This is better than doing the assessment method twice, because you did not get enough data.

References

- Patton, M.Q. (1989). *Qualitative evaluation methods*. (10th ed.). Beverly Hills, CA: Sage.
- Seidman, I. (1998). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York: Teachers College Press.
- Sudman, Seymour. 1976. *Applied sampling*. New York: Academic Press.