

# Preparing to Collect Data

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## INFORMATION BRIEF:

### *Choosing samples*

Researchers often say that your data are only as good as your sampling. In conducting the evaluation of your school or district initiative, you may or may not be faced with sampling issues. First of all, a sample is a subgroup of a population. The population is the entire identified group. Determining whether you are working with a sample or a population is often a matter of perspective. Some examples follow:

- Teachers in your school. You may want to distribute a questionnaire to all teachers in your school--**population**--to determine their awareness of a new curriculum. You may want to distribute a questionnaire to the teachers who participated in the professional development focused on the new curriculum--**sample**. You may want to interview a small group of teachers--**sample**--from the **population** of teachers who participated in the professional development.
- Parents of students in your school. Rather than asking all parents--**population**--to respond to a questionnaire, you may want to select a **sample** of parents of students from each grade level.
- Literacy coaches in your district. Even though the coaches are a **sample** of the population of educators in your district, they are also the whole **population** of literacy coaches in your school.

When you choose a sample, you are usually doing so for one or more of the following reasons:

- **To reduce the number of people or objects to a manageable level.** For example, because interviews are time-consuming, if your school is large you would probably not choose to interview every student or every parent or even every teacher.
- **To choose a set of people or objects that will be representative** of the overall population that your study addresses. For example, even though you may not want to interview your whole teacher population, you may want to make sure that you interview teachers from each grade level or school or subject area.
- **To choose a set of people or objects (artifacts)** that may not be the most representative of the overall population but will be **best prepared or most appropriate to provide the data needed for your study.** For example, perhaps a group of six teachers from two schools pilot tested a new curriculum. You would likely choose to interview these six teachers because they are the ones with the specific experience about which you want to learn, even though they may not be representative of teachers in the district as a whole.

There are many types of sampling techniques—some of them quite complex in nature. Here, we are briefly explaining four commonly used sampling techniques.

- **Simple random sample.** A simple random sample is one in which each person or object being selected has an equal opportunity of being selected. For example, you may want to do a random sample selection of seventh grade students in one middle school. In this case you might use a table of random numbers or a computer program that generates random samples.
- **Stratified random sample.** A stratified random sample is one in which you select a random sample from defined strata or groups. For example, you might want to select a random sample of parents of students from each grade level within a middle school. Again, you would probably use a table of random numbers or a computer program that generates random samples, with the difference being that you choose separate random samples from each grade level.
- **Purposive sample.** This is a commonly used approach for project evaluation. A purposive sample is simply one that is selected according to the purpose of the data gathering and by identifying the people or objects that will yield the most valid and appropriate data for the evaluation. For example, if you were planning to interview teachers to determine what they found to be the most useful support strategies that mathematics coaches used with them, rather than choosing a random sample of teachers, which might include teachers who never worked with the coaches, you would identify a purposive sample of teachers who have worked with the coaches. If this purposive sample were then too large for your purposes, you might then select a random sample from those teachers.