Data Analysis Suite of Tools
Part 2: Creating a Purposeful Data Sample

Purpose of the Tool

WORKING WITH DATA

Once you've worked as a group to identify some indicators of impact for incorporating more inquiry into your practice (Part 1 of this suite of tools), you need to think carefully about which data you are going to examine to look for evidence of these indicators of impact. This tool helps you to create a data sample that is broadly representative of the population and the kinds of activities involved in your innovation project. It encourages you to examine a range of different types of data in order to build as holistic a picture as possible of what is going on.

Suggested Time Commitment

60 min 3 steps

This tool should take approximately one hour of your study group meeting time.

When & How

This tool should be used after you have completed Part 1 of the Data Analysis Suite of Tools: Identifying Indicators of Impact. The tool can be used early on in your innovation project to plan how you are going to gather data to assess the impact of your innovation or to explore initial impacts; it can also be used later when you are exploring the longer term impact of your work.

Note:
Throughout this tool, we use the word "data" to broadly mean both quantitative and qualitative information or artifacts—for example, documentation of student work, lesson plans, interviews, survey responses, etc.

Steps

1. Taking stock

a. **Identifying the total population.** As a group, start by thinking about the total population that has been affected by your work so far. In other words, which students, teachers, parents, and/or other stakeholders have so far experienced or been affected by your innovation?

b. **Identifying different types of data.** Next, as a group, make a quick inventory of all of the data you've collected (or have access to). This data may include documentation of student work, interviews with students, notes from classroom observations, survey data, etc.

2. Determining your population sampling strategy

Ideally, you want to create a sampling strategy that strives for "maximum variation" of experiences, characteristics, or opinions associated with your innovation project but which is realistic of your time constraints. When you think about who will be included or represented by your data, consider the following criteria:

- "Outlier cases"—for example, teachers who most strongly indicated that they liked your innovation and those that most strongly indicated that they didn't, or students with the highest and lowest achievement in a particular class that involved your innovation.
- "Median cases"—for example, students or teachers who may be considered "average users," or those who fall in the middle of the outlier cases you identified above.
- "Richest cases"—for example, the experiences of a few teachers or students that were particularly interesting or inspiring.

You may be able to immediately identify who might fall into these categories. However, you may need to browse through your data after this activity to pinpoint the exact individuals you wish to include in your population sample. Make sure that the sample you come up with is broadly inclusive of different demographic categories within your population. For example, by gender or age or subject area.

3. Determining your data sampling strategy

Now that you have broadly decided who is going to be represented, it's time to decide what you're going to look at. You also need to start thinking about how you're going to distribute the workload amongst your team.

a. **Look back at the indicators of impact that you identified as Part 1 of this suite of tools.** Consider the kinds of data that are most likely to help you learn more about each of the indicators. For example, if you want to look for signs of growth in student understanding, you may want to look at samples of student work from a range of students. If you are looking at overall shifts in perception or attitude, you might want to include data related to what students and/or teachers say about changes in their perceptions and attitudes or levels of motivation.

b. **Within your study group, broadly decide who is going to look at which data.** Be sure to be realistic with regard to scope. You want to look at enough data to gain an accurate picture of the impact of your innovation project, but you don't want to look at so much data that you'll be overwhelmed.

c. **Finally, consider which data may be missing from your inventory.** Are there ways to quickly obtain this data or could you plan to collect this data in the future? For example, do you need to conduct a short survey?

Now you are ready for Part 3 of this suite of tools: Applying Indicators of Impact to your Data.