22 The Ten Commandments of Data Collection

Now that you know how to analyze data, you would be well served to read something about collecting them. The data collection process can be long and rigorous. Even if it involves only a simple, one-page questionnaire given to a group of students, parents, patients, or voters, data collection may very well be the most time-consuming part of your project. But as many researchers realize, good data collection is essential to good research outcomes.

Data Collection and Analysis

Here they are: the ten commandments for making sure your data get collected in such a way that they are usable. Unlike the original Ten Commandments, these should not be carved in stone (because they can certainly change), but if you follow them, you can avoid lots of aggravation.

Commandment 1. As you begin thinking about a research question, also begin thinking about the type of data you will have to collect to answer that question. Interview? Questionnaire? Paper and pencil? Computer? Find out how other people have done it in the past by reading the relevant journals in your area of interest. Then consider doing what they did. At least one of the lessons here is to not repeat others' mistakes. If something didn't work for them, it's most likely not going to work for you.

Commandment 2. As you think about the type of data you will be collecting, think about where you will be getting the data. If you are using the library for historical data or accessing files of data that have already been collected, such as Census data (available through the US Census Bureau at http://www.census.gov and other locations online), you will have few logistical problems. But what if you want to assess the interaction between newborns and their parents? The attitude of teachers toward unionizing? The age at which people

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over 50 think they are old? All of these questions require people to provide the answers, and finding people can be tough. Start now.

Commandment 3. Make sure that the data collection forms you use are clear and easy to use. Practice on a set of pilot data so you can make sure it is easy to transfer data from the original scoring sheets or the data collection form to a digital format. And then have some colleagues complete the form to make sure it works.

Commandment 4. Always make a duplicate copy of the data file and the data collection sheets and keep them in a separate location. Keep in mind that there are two types of people: those who have lost their data and those who will. In fact, make two backups of your electronic data! These days, you can use online data backup services such as Carbonite (http://www.carbonite.com), Mozy (http://www .mozy.com), or CrashPlan (http://www.code42.com/crashplan/) in addition to your own physical backup.

Commandment 5. Do not rely on other people to collect or transfer your data unless you have personally trained them and are confident that they understand the data collection process as well as you do. It is great to have people help you, and it helps keep morale up during those long data collection sessions. But unless your helpers are competent beyond question, you could easily sabotage all your hard work and planning.

Commandment 6. Plan a detailed schedule of when and where you will be collecting your data. If you need to visit 3 schools and each of 50 children needs to be tested for a total of 10 minutes at each school, that is 25 hours of testing. That does not mean you can allot a mere 25 hours from your schedule for this activity. What about travel from one school to another? What about the child who is in the bathroom when it is his turn and you have to wait 10 minutes until he comes back to the classroom? What about the day you show up and Cowboy Bob is the featured guest . . . and on and on. Be prepared for anything, and allocate 25% to 50% more time in your schedule for unforeseen events.

Commandment 7. As soon as possible, cultivate possible sources for your subject pool. Because you already have some knowledge in your own discipline, you probably also know of people who work with the population you are interested in or who might be able to help you gain access to these samples. If you are in a university community, it is likely that hundreds of other people are competing for the same subject sample that you need. Instead of competing, why not try a more out-of-the-way (maybe 30 minutes away) school district or social group or civic organization or hospital, where you might be able to obtain a sample with less competition?

Commandment 8. Try to follow up on subjects who missed their test-ing session or interview. Call them back and try to reschedule. Once you get in the habit of skipping possible participants, it becomes too easy to cut the sample down to too small a size. And you can never tell—the people who drop out might be dropping out for reasons related to what you are studying. This can mean that your final sam-ple of people is qualitatively different from the sample with which you started.

Commandment 9. Never discard the original data, such as the test booklets, interview notes, and so forth. Other researchers might want to use the same data, or you may have to return to the original materials to glean further information from them.

And Commandment 10? Follow the previous nine commandments. No kidding!