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the best
gift you
can give
a child.*

WE DID IT OURSELVES

AN EVALUATION
GUIDE BOOK



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Chapter 10. Respondents and Sampling

In Chapter 9, we described several tools for collecting data. Many of these tools, including written surveys, interviews, focus groups, tests of knowledge, and published instruments or assessments, involve asking questions of respondents. This chapter will help you identify who your respondents should be and how many you need.

What are respondents?

Respondents are the group of people from whom you will collect the information you need to help you answer your evaluation questions. They are the people you will interview or survey or who will participate in your focus groups.

How do respondents differ from our target population?

As described in Chapter 6, your **target population** is the group of people you are trying to reach with a particular strategy or activity. For example, the target population for a community-wide information campaign would be the entire community. The target population for a parents' hot line would be parents. You will be collecting your information about your target population.

A respondent is the person who will provide you with information about the target population. **Usually, a respondent is a member of your target population.** For example, if your target population is the parents who attended a parenting class, then you will want to collect information from these parents.

Sometimes, the respondent will not be part of your target population. For example, you might want to learn about whether parents are volunteering in their child's classroom. The group you are targeting is parents. It is possible to ask parents about their volunteering directly, but you might choose instead to ask teachers about whether more parents have been volunteering, since teachers may be more objective. If you ask teachers for information about the parents, then the teachers are the respondents and the parents are your target population.

How do we identify who our respondents should be?

You want to obtain your information from the most direct and reliable sources possible. Consider whether individuals from the target population are the best ones to answer

information about themselves, or whether someone outside of the target population would be a better respondent. In the example just given, you might recognize that parents are the most direct source of information but decide that teachers may be more objective in their assessments of parent participation and easier for your collaborative to contact. For many strategies, children are the target population. For some types of information, the child might be the best respondent. For example, children are in the best position to answer questions about feelings or concrete experiences, such as what they had for breakfast. For other types of information, the child's teacher or parent might be the better respondent. For example, parents may be the best source of information about behavior at home or about the child's past experiences.

When should we decide on our respondents?

Decide on the respondents when deciding on an evaluation method. For example, if your evaluation question is whether children are aware of the importance of brushing their teeth, the people who can best answer this question are the children themselves, so you would want to be sure that the method you choose is an appropriate tool for collecting information from children. You will need to use words that children understand. Interviews will work better than questionnaires with young children. If questionnaires will be used with older children, they need to be written at an appropriate grade level. Direct observation is another method to consider when you need to collect data on children. Remember that when collecting data from children, it is almost always necessary to obtain parental consent.

How many respondents do we need?

The more respondents who give you information, the better. Of course, you have very real constraints in terms of how much time and money you have to collect information. One important issue you need to decide is whether you can collect information about each member of your target population or whether you need to obtain data from a smaller group. If your target population is small, it is often possible to collect data on all or almost all of the people in your target population; then all of your target population are respondents. If the target population is large, it is usually necessary to collect data from only some of them. When only some of the people in your target population are your respondents, this subgroup is called a **sample**.

What is a sample?

A *sample* is the group of people from your target population that you will be collecting information from if it is not possible to collect information from all of them.

A good sample is *representative* of the population you are studying, i.e., the characteristics of your sample are the same as those of the population from which it is selected. In other words, it is made up of the same proportion of men and women, young and old, wealthy and impoverished, Democrat and Republican, etc. Your sample will have a good chance of being representative if every member of your target population has an equal chance of being selected as part of the sample and you choose the people in your sample randomly. This is called a *random sample*.

How do we select a random sample?

You can select a random, representative sample by following these steps:

1. First, make or obtain a numbered list of your target population.
2. Decide on the size of your sample (see discussion on sample size below). Keep in mind that you will probably not obtain responses from everyone in your sample.
3. Divide the size of your target population by the number of people you need in your sample. Round to the nearest whole number.
4. Using the number you arrived at in Step 3, count down your list, circling selected people. If your number is 4, for example, select every fourth name.
5. Make a list of people chosen. This list is your sample.

If you cannot obtain a list of your entire target population, there are other sampling techniques that you can use. You may wish to consult the resources listed in Appendix A or contact a local college, university, or research group for consultation.

How large should our sample be?

If you have the resources, we recommend that your sample be 10% to 25% of your target population, but no fewer than 30, the smallest number generally considered adequate to analyze. Usually, the larger your target population, the smaller a percentage of that population your sample needs to be.

If you are interested in comparing any subgroups within your sample, you will need at

least 30 of each group. For example, if you are interested in comparing teen parents with older parents, you will need at least 30 teens and 30 older parents. Subgroup analyses make your sample size needs grow considerably. Continuing the example, if you wanted to compare the findings for Latina teen mothers and Anglo teen mothers, you would need at least 30 of each teen group, for a total of 60 teen mothers.

Again, the general rule is to make the sample as large as you can afford in terms of time and money. A large sample will best represent the whole group. The smaller a sample becomes, the less your results will reflect accurately those you would obtain if you had been able to study everyone. However, a small, truly random sample will give you more accurate information than a large sample that is nonrandomly chosen, because of the possibility of *sampling bias*.

What is sampling bias?

Bias is a systematic error that can prejudice your results in some way. When a sample is biased, your respondents will not provide you with a true picture of what is happening with your target population as a whole. For example, if, instead of choosing a random sample from a list of your entire target population, you decided to pass out your surveys on a street corner one Sunday morning and the corner you were standing on was close to a neighborhood church, it is likely that you would end up with a sample that included a higher percentage of people who attend church regularly than is true of the neighborhood as a whole. This group is likely to have views that differ from those of people who do not attend church. Churchgoers' views would be overrepresented in your sample and bias your results.

Sampling bias is a particular concern when your target population includes people with low incomes. If you use the telephone book to choose your sample, for example, it is possible that your sample will underrepresent people with very low incomes because they cannot afford a telephone. Low-income respondents are often more difficult to reach than more affluent ones because their addresses and telephone numbers change more frequently. It is important to keep this challenge in mind when designing your evaluation methods.

How will we know whether our sample is biased?

Before you collect information from respondents, it is important to think about which demographic characteristics of your respondents might have an important relationship to their

answers. For example, if you believe that someone's age or gender might have some bearing on whether they attended a parenting course, then you would want to collect information about age and gender so you could look at the answers of these different groups and compare them.

Collecting demographic data will also help you to assess how well your group of respondents represents your target group. Compare your respondents and your target group in relation to these characteristics. For example, if you feel gender is important, look at what percentage of your target population were male and what percentage of your respondents were male. If 50% of your target population were male but only 20% of your respondents were male, you would suspect that the answers you received were biased because you don't have enough responses from men. It is important to include these observations in your findings and to provide an educated guess as to why certain groups did not respond.

If you do identify some differences between your respondents and your target population, all is not lost, however. When you analyze the data, report the results separately for groups that are underrepresented and that differ from the group as a whole in their answers. In the example above, you would present findings separately for men and women. In this way, you could learn, for example, whether the reasons men don't volunteer in the community differ from the reasons women don't volunteer.

How many people need to respond?

The percentage of people who complete your interview, survey, or test is your *response rate*. If you mailed out surveys to a sample of 100 people and 65 were returned, your response rate would be 65%. The response rate is important because the higher your response rate, the more certain you can be that your results accurately reflect what is actually happening in the target population. It is one guide to how representative your sample is of your target population. The higher your response rate, the more convincing are the findings of your evaluation to your collaborative and community.

How high does our response rate need to be?

As a general guide, a 50% response rate is considered fair, 60% good, and 70% very good, although the smaller your sample, the higher the response rate you would need to draw valid conclusions from your data.

A low response rate could mean that your results are biased in some way. For example, say

you sent a satisfaction questionnaire to parents who were enrolled in a parenting course and only those who completed the entire course returned it. Perhaps when you looked more closely at the group of people who didn't respond, using your registration form data, you found that they were mostly mothers who worked outside the home. It could be that those women had common reasons for not completing the course. Without their responses, an important perspective would not be represented in your findings. Perhaps they were not made to feel as comfortable as the other women, or perhaps they found the time and location of the class inconvenient. Without these perspectives, your evaluation would give an incomplete picture of the satisfaction of all of the parents with the course, and you would miss important information on how to improve your parenting course.

Response bias can be a particular problem with a written community survey when you are trying to get a community-wide picture. For example, you could distribute a survey to parents of all first-graders, but not all of these surveys will be returned. Even if your return rate is very high, it is quite possible that the survey was not returned in the same proportion by low-income or minority families. To make sure these voices are heard in your findings, analyze the data by income group and minority status (this, by the way, means you would need survey items asking about income group and minority status).

What can we do to increase our response rate?

- Given the importance of attaining a high response rate, you may wish to consider a number of things you can do to maximize yours. Some of these tips were discussed in Chapter 9.
- When mailing written surveys, include a return envelope (if you have the resources, with a stamp) and personally address them whenever possible. A survey is less likely to be returned when addressed to "Occupant."
- About two weeks after you mail the survey, send out reminder cards requesting that the respondent complete and return your survey.
- Schedule interviews and focus groups at times that are convenient for respondents.
- When interviewing people by phone or by going door to door, several attempts may need to be made to catch a respondent at home at a time that is convenient for that person to be interviewed.

EXAMPLES FROM REAL LIFE: A Community-wide Telephone Survey

The members of the Tuolumne YES Partnership wanted to know whether their message about the strong connection between substance abuse and child abuse was being heard and heeded. To determine whether their public education campaign was effective, they decided to survey parents of young children in their community.

Collaborative members asked themselves, “How can we reach parents of young children?” They decided to turn to the schools for help. Through the persistence and connections of the collaborative board members, all elementary school principals in the county agreed to support the collaborative’s survey effort. After considerable discussion, the principals agreed that they could provide the phone numbers of families with children in grades K-3 without names attached without compromising the families’ privacy. Respondents were chosen at random from the phone numbers provided.

Next, the collaborative coordinator recruited interviewers from the collaborative ranks and trained them on how to proceed with the interview. When potential respondents were reached on the phone, the interviewers told the respondents that they were from the Tuolumne YES Partnership and that they were calling to find out what people in Tuolumne County thought about their “Health Promotion Campaign.” Interviewers also told respondents that the interview would take seven minutes and that their answers would be confidential. Privacy was assured; interviewers never were told or asked the names of the respondents. Interviewers did ask for some demographic information for analysis purposes, including the respondents’ marital status and number and ages of their children.

After a massive telephone blitz, 400 residents of Tuolumne County who were also parents of young children were interviewed. Although pleased with these results, the members of the YES Partnership were not completely satisfied that their sample represented all the young families in their community. Next year, the collaborative plans to canvass places such as Wal-Mart and check-cashing centers in an effort to include parents who do not have phones. They also hope to obtain phone lists from Tuolumne County preschools and “baby and me” programs to include parents who have only very young children.



- Administer surveys and tests on-site rather than asking respondents to take them home and mail them back to you. Provide envelopes in which respondents can place a completed survey when it is to be handed in if the survey contains sensitive or potentially embarrassing information.
- If you have the resources, offer an incentive for completing your survey or participating in your focus group. Even a token, such as a coupon for an ice cream cone at a local store or a calling card good for five minutes of long-distance calls, can make people more inclined to participate because this demonstrates your appreciation for their time. Similarly, offer children incentives such as stickers or tokens for bringing back a completed survey from their parents.

What else can we do?

Sampling is a very complex subject that takes people years to learn. We've given you some general guidelines, but we would also encourage you to contact a local college or identify a consultant who can advise you on how best to draw a sample for your particular evaluation questions.



EXAMPLES FROM REAL LIFE:
Sampling Kindergartners to Assess School Readiness

Members of the Children’s Collaborative of Tahoe Truckee faced a daunting task: collecting data on school readiness on children entering kindergarten throughout the Tahoe Truckee Unified School District. One of the collaborative’s first challenges was to obtain the school board’s permission to test kindergartners in each of the five elementary schools in the district. Fortunately, the collaborative argued persuasively that the data were vital to assess and track how well prepared the community’s children were to start school. The collaborative also provided assurances that the children would be screened only after receiving parental consent, and that collected data would be stored under lock and key to safeguard the confidentiality of the children and their families.

Because principals wanted to minimize the disruption the screening would cause in the classrooms and because the collaborative had a limited budget to pay classroom aides to administer the screening, a sample of all kindergartners was chosen. (One school in the district did not participate because it had adopted a different kindergarten screening tool and did not want to change.) With the help of their evaluation consultant, the collaborative members determined that they wanted to screen a minimum of 150 students, or 43% of the 350 children entering kindergarten in participating schools. This number was chosen because such a high percentage would allow the collaborative to generalize these findings to the population with confidence and the collaborative had enough money to collect data on this number of children.

To choose a random sample, the screening coordinator assembled the kindergarten rosters of the four schools participating in the screening. One school was very small, with only 10 children starting kindergarten, so all 10 children were included in the sample. Every second name was chosen from the remaining lists, yielding a sample of 180 children $[(350 - 10) \div 2 = 170 + 10 = 180]$. To achieve the desired 150 responses, the collaborative needed 85% of the 180 children in the sample to be screened.

After the sample of potential respondents was selected, parental consent forms were sent home to these children’s parents. Only after these consent forms were returned could trained classroom aides administer the screening. Parents also received a questionnaire to complete about their child’s health, social skills, and self-help skills at home. Getting signed consent forms returned from parents proved to be challenging in some schools. The initial returns of the parents’ questionnaires were very slow and delayed the analysis of the data. To increase return rates, the collaborative’s screening coordinator went to parents’ homes to collect this portion of the test.

In the end, 80 children, or 23% of kindergartners in the district, were screened. The complexity of the screening, inexperience of test administrators, and, in a few cases, lack of cooperation by teachers slowed down the data collection. Not surprisingly, the two schools with the highest response rates had principals who enthusiastically supported the project. Although this sample was considerably smaller than hoped for, a large enough proportion of children had been tested for the collaborative to be able to draw conclusions about the kindergarten population as a whole. The Children’s Collaborative of Tahoe Truckee had accomplished a huge undertaking, conducting a districtwide, random screening of children using a standardized and widely accepted instrument. The data they had collected were as good as gold.