Guidelines for effectively implementing interviews and surveys, for developing questions, and for selecting respondents are important to the quality of your evaluation. These guidelines will also help you determine which of these tools is best suited to your respondent group to obtain the information you need.

# Interviews

Interviews are often the best tool to use when you are exploring. If you haven't the faintest idea what people are likely to say, you can't develop the closed responses to the survey items. You need to ask open-ended questions and learn. Interviews can gather useful information for front-end, formative, and summative evaluations. Here are some examples of open-ended interview questions that could help you learn more about your program or the need for a program.

- If a newcomer asked you to describe this national forest, what would you say?
- Please describe how you used this field trip experience when you returned to the classroom and the reactions your students had to their experience.
- Five years from now, what do you think you will remember most about this experience?
- What were the most important things that happened to you today? What made them important?
- What evidence tells you that your students understand this new concept?
- What do your friends say about your involvement with this program?
- If another school were to start a program like this, what would you recommend they do differently?

Interviews are also useful evaluation tools when you want to gather stories, impressions, perspectives, and rich detail from participants or stakeholders. Many of the questions in the previous list could be used this way. Used for either purpose—to explore experiences or gather details—such questions invite respondents to say whatever they want. Their responses may be positive or negative, simple or detailed; they may talk for ten minutes or say everything in two.

The following questions are poor examples of open-ended questions, because they constrain respondents to a narrow set of answers. Even if the responses are not provided, they are implied. On the other hand, if the answers to these questions provide exactly the information you need to know, then they could be useful within the context of an effective interview.

- How satisfied were you with this program?
- How many times have you been to this facility?
- How often do your students talk about their experience?
- Do you plan to return?

Typically an interview uses a mix of open and closed questions, which varies the pace and intensity of responses to make a more pleasant conversation.



## 3.1 APPLICATION EXERCISE

Review your evaluation plan and identify an evaluation question that could be answered by interviewing a few stakeholders, staff, or participants. Using this broad evaluation question, develop a series of open-ended questions. Add in a few closed questions as needed. If your evaluation plan does not suggest a need for interviews, imagine that you want to talk with learners about their experience with your environmental education program and develop your set of questions accordingly.



## 3.1 CHECK FOR UNDERSTANDING

For each of the seven questions listed in the Interview section, determine if they would be best used in a front-end evaluation, a formative evaluation, or a summative evaluation. (Some questions would be appropriate in more than one type of evaluation.)

*Answers are found in appendix A.*

Interviews are very helpful in obtaining rich detail from a few key people. If you can conduct the interviews over the phone, via Skype® or a webinar you can collect data from people over a large geographic area. Interviews are also good strategies for building relationships between your organization and others in the community. Finding out how your organization and its programs are perceived or what similar programs already exist can help you establish new programs that are valued among your potential partners. Interviews can also help you know how people have used your materials and how they have applied the information you provided.

For example, prior to the final meeting of a teacher in-service program that stretched over several months, interviews were used to find out if teachers were using the materials they received, what their experience entailed, and whether they were working on their final assignment. Organizers anticipated that responses over the phone might be more honest than responses on a paper survey (see box 3.1). Of the 24 participants, half were reached by phone in the evenings during one week. Because the responses were similar, the organizers decided that these 12 respondents sufficiently represented the entire group. The calls revealed that teachers were confused about their final assignment, and this information helped the organizers design an icebreaker based on the teachers' experiences and a handout that more explicitly described the assignment (Monroe 2001).

Interviews need not be lengthy. Five key questions may be all you need. Depending on how much information respondents provide, 15 minutes may be sufficient: even 15-minute interviews can yield a lot of information. Be prepared to spend a significant amount of time reviewing the notes, perhaps transcribing tapes, and summarizing information. Likewise, be open to information you did not expect, and learn from it. Open-ended questions enable new information to surface. For example, in a midterm evaluation of a curriculum development process, participating teachers were asked what they would recall about this program five years in future. Because the program's objectives focused on student knowledge, the evaluators were surprised to learn that the teachers saw the process as a professional development opportunity for them. This despite the fact that the teachers had been chosen for their excellent teaching skills and abilities (Monroe et al. 1997).

## ■ Question Wording and Sequencing

After you have come up with a list of questions you'd like to ask in your interview, the next step is to create an *interview guide*—that is, a carefully worded script or template that presents your questions in the order you will ask them of respondents during the actual interview. A sample interview guide is provided in figure 3.1.

You don't want the wording or sequencing of the questions to *lead* respondents to a particular response. You also don't want the questions to be too complicated or confusing. You want to obtain unbiased, honest responses that will help you make good program decisions. Although you will spend some time crafting a few good questions, your interview guide is not so rigid that you cannot ask other questions that come up spontaneously. You can ask respondents to clarify their answers, request examples, and probe their stories.

Use the following guidelines to create a series of good questions that will become your interview guide.

### Pay attention to wording:

- Avoid technical jargon such as "ecosystem management" or "conservation easement," unless you know your audience understands these terms as you do.

**FIGURE 3.1**  Guide for Student Interviews

*"Hi, my name is Judith, and I am from University of Florida. May I ask you some questions? Your teacher will let us use this corner of the classroom. Your answers will help me in a school project and won't have anything to do with your grade in this class. In fact, you don't even have to answer any questions that you don't want to."*

1. What do you usually do to have fun? On your own? With your parents?
      Where do you do that? How often do you do that? How much time do you spend outdoors per day? Why do you like being outdoors? Is there something you really want to do for fun that you haven't had a chance to do yet?

2. What is your favorite place? Why?
      Are your favorite places defined by what you can do there? Are any of these your favorite activities: going shopping? going camping? going to Disney World? going fishing? going to a movie? playing computer games?

3. When was the last time you went to a natural place? Where did you go?

4. Do you like to play with animals? What kinds of animals?

5. Do you like plants? Are you interested in planting flowers and trees?

6. Did you go on the school field trip to the Indian River Lagoon?

7. Did you do things in class that related to the field trip?
      What kinds of things do you remember?

8. What kinds of things do you remember doing on the field trip to the lagoon?
      What did you learn about? Did you also learn about that in school?

9. Had you been to the lagoon before your class went on the field trip?
      When did you go? What did you do while at the lagoon? Did you go with your family? with friends? with schoolmates? with other people?

10. Does the Indian River Lagoon need our help?
      Why do you say so?

11. Have you done anything to help the Indian River Lagoon?
      What did you do? What else do you think you could do?

12. What are you interested in learning about the environment?

- Avoid sensitive or loaded terms that generate emotional responses or that could be defined differently by opposing stakeholders, such as "fragile habitat," "purifying water," "life-nourishing properties," "critical resources," "pollution," or "corporate greed."

### Put the questions in the right sequence:
- Begin an interview with questions that help establish a positive and comfortable atmosphere. Asking someone to recall an experience or tell a story is often a good way to start.
- Next, use questions that get at the purpose of your interview, but sequence these so that people can easily move from one concept to another. If, for example, you want to know how to improve your program, you might ask a series of questions such as these:
  - Please describe some of the highlights of the program you attended.
  - What concerns or problems did you observe about the program, if any?
  - What types of concerns or problems have you heard that others had with the program?
  - What ideas do you have for fixing these problems?

### Come up with ideas for keeping the conversation going:
- Use prompts such as "Tell me more about your experience" and "Do you mean that . . . ?" to keep the conversation flowing, to assure respondents that they are being heard, and to keep the interview on track. Prompts enable the interviewer to ask clarifying questions and draw more detail from respondents.

- Include prompts in your interview guide to remind you to probe key areas consistently.

### Pilot test your interview guide:
- When you believe your questions aren't biased, that the vocabulary is appropriate, and that the interview won't be too long, select five people who are similar to those you will interview and ask if you can pilot test your interview with them.
- Use your interview guide exactly as it is written to interview these pilot testers. Note the spots where people are confused and where they ask questions. Ask what they mean by a response if you aren't sure. Ask if the questions are biased. You might even ask your pilot testers to suggest questions that would better elicit the responses you seek.
  - If they all have similar reactions, fix any problems you find in your interview questions and pilot test again with another five people to verify the outcome.
  - If all five testers have different concerns, ask five more people to help you, repeating this testing and revising process until you feel confident that your questions are working the way you want them to. You don't need to fix a problem indicated by only one person, but you can use that tip to ask others how they understand the same point.
- When the interview results indicate that respondents understand the questions as you intend them to be understood, then your interview guide is ready to use with actual respondents.

See box 3.2 for more information about pilot testing your survey.

---

### BOX 3.2

## Pilot Testing a Survey with Interviews

Interviews with a few middle school students were used to pilot test a large survey on biodiversity. The organizers needed to know if students in disadvantaged urban districts were able to read, understand, and answer the survey questions. In one class the teacher allowed small groups of students to be interviewed in a separate room, while the other students were engaged in a special activity. Another teacher asked for all students to be interviewed over several days. Students completed the written survey and then met with the interviewer in small groups to answer these questions:
- What kinds of animals were you thinking about when you answered this question?
- What other examples can you think of?
- Which questions did you find confusing?
- Were there any questions that didn't provide a very good answer?

Ensuing discussions with students revealed different definitions of common words that rendered their survey responses meaningless (for example, a "plant" was considered by some students to be a "shrub," rather than any photosynthesizing organism. Students defined "plants" as inedible, fruits and vegetables were not plants).

*Source: Monroe (2001).*

## ■ How Many Respondents?

In-depth conversations are time consuming. They generate a lot of information that can be difficult to condense and interpret. You won't be able to interview hundreds of people, but any number of respondents from a handful to 40 is reasonable. Since your sample size will be fairly small, you need to make sure you are speaking to the *right* people. Who is right depends on your questions and the purpose of your evaluation (see chapters 1 and 2). For example, to suitably match respondents with evaluation purpose, you could interview

- twenty "typical" children—five from each of four classes—selected by teachers, to understand the experience of a program from the children's perspective;
- the principal of a school and the lead teacher for each grade to obtain an understanding of administrative and curricular issues;
- four community leaders and up to four additional people to whom these leaders direct you in order to learn how your program could increasing funding;
- teachers from the schools with the best and worst socioeconomic demographics—on the assumption that these extremes will give you a good sense of the range of possible experiences; or
- all eight of the staff and volunteers who are responsible for the program to learn about the program through the first-hand experiences of individuals.

In reality, planning and conducting interviews is by design an iterative process. Your first few interviews will give you information that may change your interview guide. The length of the interviews could influence how many total interviews you can realistically conduct. The willingness of interviewees to participate may depend on how long the interview is likely to be. It is difficult to set minimums or maximums for this process, so try to abide by this rule of thumb: keep interviewing until you have the information you need, as long as you are getting different perspectives, and until you have included enough people in your sample to be confident of your summary.

For example, to help evaluate the state Project Learning Tree program and develop questions for a survey, interviews were conducted with a few teachers in Florida. One hundred teachers were randomly selected and sent a postcard asking if they would

agree to participate in a telephone interview. From the positive responses, 15 teachers were interviewed with questions such as "What do you remember about the PLT workshop?" and "What types of challenges do you face in using PLT?" Because the responses were similar, interviewers did not contact additional teachers. The interviewers were impressed that the teachers remembered and enjoyed their workshop experience. Many of the teachers said they still teach the same activities they learned in the workshop. Some teachers complained about the state's emphasis on standards and tests, which suggested that questions about these barriers should be included in a future survey of educators (Easton and Monroe 2000).

### 3.3 APPLICATION EXERCISE

Think again about the evaluation question(s) from your evaluation plan that could be answered through an interview. Who and how many people will you need to interview? Who can you interview to pilot test your interview questions?

## ■ Conducting an Interview

If more than one person will conduct interviews, make sure all the interviewers get together to talk about the interview guide, the procedure, and about how they will organize the information they gather. Everyone should handle interviewing similarly, use follow-up prompts equally often, and give respondents helpful cues without altering responses. It is appropriate to say, for example, "We're about halfway through my list of questions," while it is inappropriate to say, "Oh, that was a good answer." All of the interviewers should record information the same way, preferably with tape recorders and forms.

One person should schedule all of the interviews to make sure that all respondents receive consistent introductory information. Respondents should know the purpose of the interview, understand how and why they were selected, and, ideally, should feel a responsibility to provide high quality information. This information should be written into the interview guide so that interviewers remember to use it to

preface each interview. Confirm the time that each interview will begin, and give people an idea of how long it might last. Reassure people that although the information they provide will be useful, their identity will be protected—you are interested in the sum total of comments, not who said what. If you are obtaining consent for participation (in the case of university-based data collection), now is the time to do this. (For more on informed consent, see chapter 4.)

Interviewers should begin and conclude each interview by thanking the respondents for participating and reminding them how their perspectives will be useful to the organization. Request permission to tape record the interview and start the tape rolling.

Interviews should be held in a location, where you are not likely to be disturbed and where respondents will be comfortable. Sometimes this means their homes. Often it means using a public facility like a school, coffee shop, library, or a county extension office. Travel time, parking, noise level, electrical outlets, and public restrooms can be factors that determine where the interviews are held.

### 3.4 APPLICATION EXERCISE

Return to your interview guide and add an introductory statement about the purpose of the interview, a thank you, and closing remarks. You can review, critique, and improve your interview guide by using the Interview Guide Checklist in worksheet 3.1 at the end of this chapter.

## ■ Now What?

When you have completed the interviews, you will have a pile of notes and tapes in front of you. Your job is to convert the tapes to written notes, reduce the information to meaningful concepts, and convert the concepts to useful recommendations. Chapter 5 includes guidelines for analyzing information from interviews and open-ended questions. It will help to go back to your evaluation plan and logic model (see chapters 1 and 2) to recall the overarching questions you need to answer with this information.

## ◼ Quality Assurance

The information you collect from your interviews will be useful in your evaluation if you have

- designed a good set of questions to guide the conversation;
- conducted the interviews consistently and without bias; and
- compiled and reduced the information into meaningful recommendations.

## Surveys

A survey is any written or verbal set of questions that is the same for all participants and that typically uses mostly *closed questions* (for an example of a survey, see figure 3.2). Because closed questions supply the responses, they are easier to tally than open-ended questions. The great advantage of using a survey with closed questions is that you can handle huge amounts of information. This is important if you want to generalize your results to a larger population. For example, if you want to say that your program is successful because youngsters learn, teachers believe your program is helpful, or people go home and install water conservation devices, you need to collect very specific information from a large number of people. Phone calls to ten friends won't be good enough. In-depth interviews with 20 typical participants may not be sufficient either. You will have a more powerful story if you collect concrete and specific responses from 300 people who represent your participants. You can do that with a survey. The survey design guidelines offered in this section are designed to make sure that

- your respondents are answering the question you intended to ask;
- you reach the right respondents;
- you reach enough respondents;
- you interpret the responses as the respondents intended;
- you can use these respondents to suggest what a larger population would say, feel, or do; and
- you can compare groups of respondents.

Surveys can be used for front-end, formative, and summative types of evaluation. The following questions, for example, were distributed as part of a formative evaluation of the California Guide for Environmental Literacy, a document to help teachers implement environmental education in the classroom. These questions encouraged respondents to circle a number on a five-point scale and provide comments.

1. Is the document clear about what educators can do to develop integrated K-12 curriculum that will enhance the environmental literacy of students? (strongly disagree to strongly agree)
2. Are definitions and terms explained sufficiently to convey full meaning? (strongly disagree to strongly agree)
3. What is your impression of the document's ability to capture the interest of educators? (not interesting to electromagnetic)
4. Is the intent of the document clear? (very vague to very clear)
5. How thoroughly did you read the document? (not very to entirely)
6. If you only read some sections, which were they?
7. Do you agree with the underlying philosophical direction of this guide? (strongly disagree to strongly agree)
8. Did this document help you understand how to more effectively translate environmental education into classroom practice? (strongly disagree to strongly agree)
9. What is your overall rating of this document? (very poor to excellent)

### 3.5 APPLICATION EXERCISE

Looking again at your evaluation plan, which evaluation questions might be appropriate for a survey? What categories or topics should your survey cover (such as "attitudes toward insects" or "experience during visit")? If your original plan does not lend itself to a survey, imagine developing one to find out what the community thinks about your programs, then generate some topics or constructs that survey questions could measure.

## ◼ Types of Survey Questions

Evaluations can include a wide variety of question types. *Categorical* questions allow respondents to answer by selecting one item (usually) from a group of similar items. Asking if respondents are male or female is an example of a categorical question. So is asking respondents to select their age from within a range of different ages. Categories should not overlap but be discreet, complete, and exclusive—otherwise respondents will want to check "other," and that won't tell you much. *Scales* invite respondents to select as their answer one point along a range, such as "never" to "often" or "very interesting" to "boring." Scales of 1 to 5 are often used, with 1 on the end that means "not very much," as it is close to zero. *Ranking* questions ask respondents to indicate their preferences by ordering the options, with 1 being the most preferred.