Social Development Papers

Social Analysis

Selected Tools and Techniques

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1. Introduction to the Issues

Increasing importance is being attached to facilitating dialogues among stakeholders in development projects and programs, to development interventions, and to increasing the voice of the poor in policymaking at all levels. This volume selects four tools and techniques that provide rigorous methods for eliciting information from stakeholders to ensure that the information can feed into World Bank projects and programs.

Social analysts working in development face three challenges. The first is to draw out information from stakeholders, who can provide understanding both of disenfranchised groups and how power works in any social context.[1] The second challenge is to identify and verify patterns in the data and to understand the underlying logic that results in a pattern's being reproduced. Understanding the logic underlying patterns will enable the analyst to identify the sets of incentives necessary to change patterns of behavior—the key task of development. The third challenge faced by analysts is to translate for development agencies what the actors' expressed interests mean in terms of development objectives.

The first of the four techniques presented in this volume—the *focus group*—provides a popular and flexible way to meet the first challenge, and guidance on ways to systematize the data received. The *Q-sort* methodology will not provide as much guidance on how to ask questions. However, it provides a rigorous methodology by which to analyze patterns in the survey data and reveal the mental models of the survey participants. *Ethnographic* methods provide guidance on all three challenges. The fourth technique—

scenario analysis—will enable diverse groups of stakeholders to identify the key drivers of change behind a development process and is particularly useful in translating stakeholders' expressed needs into development strategy.

These techniques are four among many in use by the World Bank and other development partners. The methods already in use for development include Rapid Rural Appraisal, Participatory Rural Appraisal, Gender Analysis, Appreciative Inquiry,[2] Systematic Client Consultation, Beneficiary Assessment, and SARAR.[3] These methods all have their own literature and practice, which are not replicated here. Most of these methods are well documented in *The World Bank Participation Sourcebook*.[4] The techniques presented in the current volume also can be used to flesh out the approaches developed by the Bank's Poverty Reduction and Economic Management Network (PREM) Public Sector, and Poverty Divisions. These PREM approaches include assessing political commitment, poverty-mapping, and participatory poverty assessments. The four techniques presented in the this volume provide means to implement the PREM approaches.

In choosing to use one technique rather than the other, a task manager must make a trade-off. The choice of technique will vary according to the stage of application in the project cycle, the budget and the time available, and the breadth and depth of analysis required. Using more than one method can increase the reliability of the results. There is a danger in single technique fundamentalism; none of these techniques is a panacea for all situations. The tools described here are not

Table 1. Strengths and Weaknesses of Techniques

Method	Reliability of information	How many respondents?	Speed of analysis	Cost	Prevalence of actors/ analysts	No. of analysts/ facilitators required	Strengths of technique	Limitations of technique
Q-sorts	High Validation is rapid, because actors are on site.	10–100	Rapid Full analysis within 24 hrs.	Modest – medium (if actors already are assembled on site)	Analyst-driven	1 person fully trained in method-ology, *or* 3 (facilitator, analyst, and computer analyst)	To force choices and reveal mental models	Not a research method; questions are pre-determined
Focus groups	Medium Depends on nos. and depth of interviewing	6–8 per group, repeated 3–4 times for each unit of analysis (i.e., 18–32 people)	Medium	Medium – expensive	Analyst-driven	4–5 depending on no. of repetitions	To understand how people think or feel	Does not build consensus Does not provide empirical reality
Scenario analysis	Not subject to reliability testing, because it is imagining futures High reliability in identifying drivers of change	10–25	Slow	Expensive	Analyst-facilitated, actor-driven	4–6	To identify key drivers and indicators To understand complex situations To build consensus	Does not identify next steps Will not survey all stakeholder interests
Ethno-graphic methods	High micro-level reliability in limited spheres Medium-low macro-level reliability	Depends on breadth of inquiry	Slow	Modest	Actor-driven	1 person minimum; ideally, team of 3-5 in different locations	To understand how people think or feel	Inferring patterns from individual data may not be reliable

blueprints for action. Each practitioner must refine them and adapt them to the context, so that they enhance the quality of the particular project or program.

Table 1 sets out some of the characteristics of the techniques presented in this volume.

Notes

1. Stakeholders are active social actors with three key characteristics: (1) practical consciousness derived from life experience; (2) their own theories about social relationships and power; and (3) systems of reflective monitoring on how things work. See A. Giddens, *The Constitution of Society* (Berkeley and Los Angeles: University of California Press, 1984).

2. Appreciative Inquiry is a technique that has been used with great success to find local solutions, locate excellence in organizational culture, and build coalitions on the basis of past success. The technique is fully explained in C. Elliott, *Locating the Energy for Change: An Introduction to Appreciative Inquiry* (Winnipeg: International Institute for Sustainable Development, 1999). It is also concisely explained in S. A. Hammond, *The Thin Book of Appreciative Inquiry* (Plano, Tex.: Thin Book Publishing Company, 1996), so is not included as a separate chapter in this volume. See also M. Grindle, "Divergent Cultures: When Public Organizations Perform Well in Developing Countries," *World Development* 25 (4) (April 1997).

3. SARAR is a participatory approach to training. The acronym stands for five attributes or abilities that are critical to achieve full and committed participation in development: self-esteem, associative strength, resourcefulness, action planning, and responsibility for follow-through. SARAR is a highly experiential methodology whose central strategy is group process. Its purpose is to (a) provide a multisectoral, multilevel approach to team building through training, (b) encourage participants to learn from local experience rather than from external experts, and (c) empower people at the community and agency levels to initiate action.

4. *The World Bank Participation Sourcebook* (Washington, D. C.: 1996).

2. Designing and Conducting Focus Group Interviews

Richard A. Krueger and Mary Anne Casey

Market researchers have used focus groups to search for ways to improve and market their products to consumers since the 1950s. In the last 20 years, government agencies, nongovernmental organizations (NGOs), academics, and nonprofit organizations have started using findings from focus group interviews to help make decisions about their products and services. International public health organizations were quick to make use of focus groups, particularly in social marketing efforts. Educational and environmental organizations also have used the technique to listen to their employees as well as to their current and potential users.

The techniques we share are based on what we have learned while running focus groups with nonprofit organizations.

Characteristics of Focus Group Interviews

A good focus group has the following characteristics: carefully recruited participants, interacting in a comfortable environment, led by a skillful moderator, followed by systematic analysis and reporting. When conducting focus groups:

Carefully Recruit Participants

- Invite individuals who have the characteristics, experience, or knowledge needed to provide rich information on the topic.
- Limit the size of the group to six to eight people. It is desirable to have enough people

to generate diverse ideas but not so many participants that they do not have a chance to share.
- Hold three or four separate focus groups for each type of participant one desires to use as a unit of analysis. For example, to compare how men and women view a particular issue, one should conduct three or four groups with men and three or four groups with women.
- Avoid power differentials among participants. All participants in a group should feel comfortable talking with one another.

Create a Comfortable Environment

- Hold focus groups in familiar or neutral settings such as office buildings, libraries, schools, homes, cafes, or community gathering spots.
- Seat people so that they can easily see one another.
- Interview people in their language. Do not use an interpreter in the group. Using an interpreter stilts the discussion and turns the process into serial interviews rather than a lively discussion among participants. It is better to train someone who knows the language to moderate the groups than to have someone who knows how to moderate work through an interpreter. After the group is over, if necessary, translate the discussion back into the analyst's language.

- Record the discussion for analysis. Take field notes and, if possible, make an audio tape recording. Sometimes a laptop computer can be used to make a transcription during the focus group. Explain why the focus group is being recorded and who will have access to the data.

Choose a Skillful Moderator

- Pick moderators who make people feel comfortable and who are good at listening. For groups of people who are used to being in powerful positions, pick a moderator who can keep the group on track and control dominant participants.
- Use predetermined questions. The moderator should be prepared to ask a set of questions designed to get the information needed by decisionmakers.
- Establish an open environment. It is the moderator's job to create the feeling that it will be safe to talk in the focus group.

Record and Analyze Data Systematically

- Develop a systematic approach to recording and analyzing data. The analyst should be sure that he or she can describe the process to others.
- Use a verifiable process. This means the analysis process should be documented and there should be evidence to support the findings. Another researcher should be able to review all the data and see how the analyst arrived at the findings and conclusions based on those data.

A focus group is working well when participants begin to talk to one another and build on one other's comments rather than continually responding directly to the moderator. Ideally, participants become engaged, and the focus group becomes a forum for their own discussion. The moderator should begin to play a less central role as participants share experiences, debate ideas, and offer opinions. Some groups arrive at this point quickly; others never reach it.

Roles in Conducting Focus Groups

There are different roles in a focus group study: organizer (leads planning and developing questions), recruiter (invites participants), moderator (leads the groups), assistant moderator (handles logistics and captures data), and analyst/reporter (summarizes the data and prepare reports).

One person can fill all the roles. However, we prefer working with a team of four or five people. Team members work together to complete the study, but individuals may take primary responsibility for certain tasks. For example, one may have multiple moderators who speak different languages to better reach the groups being addressed. Each of these moderators would be responsible for the outcome of his or her focus group.

Finally, although one person may be responsible for organizing the study, the plan and questions are usually stronger when several people are involved in their development.

Planning

The main challenge during the planning stage is to design a study that will answer the key questions within the time and budget constraints. The task manager and the team must be clear about the purpose of the study. The task manager must decide whether focus groups are the appropriate method. If focus groups are the best method, then the task manager must decide how many to do and to whom he or she wants to listen.

First Steps with Focus Group Studies

In developing and planning a focus study group, five key steps should be followed:

1. Decide whether focus groups are appropriate. Focus groups work particularly well for the following tasks:
- Understanding how people see needs and assets in their lives and communities.
- Understanding how people think or feel about an issue, idea, behavior, product, or service.

- Pilot testing ideas, reforms, or projects. Focus groups can be used to get reactions to plans before large amounts of money are spent in implementation.
- Evaluating how well programs or projects are working and how they might be improved.
- Developing other research instruments, such as surveys or case studies.

Focus group interviews are *not* meant to be used as:

- A process for getting people to come to consensus
- A way to teach knowledge or skills
- A test of knowledge or skills.

If the task manager answers yes to any of the following questions, he or she likely will need to consider other methods to use in conjunction with, or instead of, focus group interviews:

- Do you need statistical data? Focus groups cannot provide statistical data to project to a population. The number of people listened to is too small to be statistically representative.
- Will harm come to people who share their ideas in a group? Although the task manager can guarantee that he or she will keep information shared in the group confidential, the moderator cannot promise that other participants will do the same. If harm may come to people who openly share in the group, choose another method, such as individual interviews.
- Are people polarized by this topic? It is difficult to conduct focus groups if people holding opposing views on controversial issues are in the same group.
- Is there a better, more efficient way to get the information?

2. Clarify the purpose of the study. Team members may disagree about the information that the study should produce and what should be done with the results. They should come to agreement on a clear purpose for the study. This will make the entire process simpler.

3. Decide what types of people to listen to the (target audience(s)). What types of people have the experiences or characteristics that will allow them to provide input on the study topic? The target audience may not consist of the most highly educated or the most influential people in an area, but its members have direct experience with something about which the task manager wants to learn more. For example, young people who drop out of school know a great deal about what it would take to keep other young people in school. Teachers, counselors, and parents may give the task manager different perspectives on the same issue.

The task manager should consider the usefulness of listening to a wide variety of people. These include elected officials, influential local figures, the people most affected by the change, the people who must buy into the change before it can happen, and employees (both frontline staff and management) of the organizations that will implement programs or services to support the change.

4. Get advice from the target audience(s). The task manager should find a few people similar to those whom he or she wants to invite to the focus groups and tell them about the study. The task manager can ask for their advice on several issues: Who can ask these kinds of questions, that is, who should moderate the focus groups? Where might the groups be held? What days or times would work well for people? How does one find people with these characteristics? What would it take to get people to come?

5. Put thoughts in writing. The task manager should develop a plan that includes the study's purpose, the number of groups, the potential questions, a timeline, and a budget. This plan will clarify one's thinking and provide a basis for further discussions. Then this plan should be shared with colleagues and their feedback invited.

Sampling and Number of Groups

The basic sampling strategy is to conduct three or four focus groups for each audience category

that is of interest. If after the third or fourth group the team is still hearing new information, the team might continue conducting focus groups until no new information is elicited.

Do not use a statistical formula to determine sample size. Instead, use the concepts of *redundancy* or *theoretical saturation*, in which the researcher continues interviewing until no new insights are presented. In effect, the researcher will have exhausted the range of views on the topic, and continuing the interviews would only yield more of what the researcher already knows. Theoretical saturation tends to occur regularly in focus group research after three or four groups with one audience.

For example, suppose a researcher were doing a study in a country with several larger urban areas and a sizable rural population and wanted views that reflected the entire country. He or she might decide to conduct three or four focus groups in the cities and three or four in the rural areas. If the country had a multilingual and multiethnic population, the researcher likely would want to conduct three or four groups for each language and each ethnicity in both the urban and rural areas. Clearly, the number of focus groups needed can multiply quickly, and the budget and timeline will force the researcher to restrict the size of the study.

Questions

Developing questions carries several challenges. The aim is to ask questions that address the purpose of the study. Nevertheless, many study teams get swept away inventing questions that would be interesting to ask but whose answers would not address the study's purpose. A good set of questions focuses on getting information that directly relates to the study's objectives. The questions must be conversational and easy for the participants to understand. The researcher must have the right number of questions—neither too many nor too few. He or she must start with questions that allow the participants to get ready to prepare the participants to answer the most important questions.

Developing a Set of Questions

A set of questions developed for the focus groups is sometimes called a "questioning route." In a two-hour focus group, the researcher can expect to ask about a dozen questions. The questions should be written in the form that they will be asked in the groups. There are three steps to develop a questioning route: (1) hold a brainstorming session, (2) use the brainstorming questions to draft a questioning route, and (3) send the draft questioning route to the team for feedback (box 1).

1. Hold a brainstorming session. The researcher should begin by inviting four to six people who are familiar with the study to a one- or two-hour meeting. Ask these people to suggest questions that should be answered in the study. Questions may be lightly discussed but do not get stuck debating the merits of a single question. Have one person record all these questions, and adjourn when ideas dry up.

2. Use the brainstorming questions to draft a questioning route. Groups are good at brainstorming, but they are not efficient at developing questioning routes. Have one person use the questions generated in the meeting as the basis to draft a questioning route. Select the questions that seem most likely to provide useful information. Rephrase these questions according to their order in the questioning route. Sequence the questions in a logical flow from general to specific.

Say the questions out loud. Are they easy to ask? Do they seem like questions the target audience will be able to answer?

There is no magic in having approximately 12 questions. However, beginning focus group researchers often develop questioning routes with 20 to 30 questions—which is far too many. The result of too many questions will be shallow data. Participants will not have enough time to go into depth on any of the questions. Once we have a draft questioning route, we estimate how much time we think the group should spend on each question. Not all questions deserve the same amount of time. Some questions are simple, or not as important, and

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Box 1.   Examples of Questioning Routes

Pilot testing new materials
1. Take a few moments and look over the materials (the materials presented to the group should include a brief description of a program and examples of handouts that participants would receive).
2. What one thing do you like the best?
3. What one thing do you like the least?
4. If you could change one thing about the materials, what would it be?
5. What would get you to participate in this program? (Under what conditions would you participate?)
6. Suppose that you were trying to encourage a friend to participate in this program. What would you say?
7. Do you have any other advice for us as we introduce this new program?

Basic questions for formative program evaluation
1. Tell us how you participated in the program.
2. What did you like best about the program? (What has been most helpful to you?)
3. What did you like the least about the program? (What was least helpful to you?)
4. What should be changed?
5. What should be continued… as is (keep it the same) or with revision (continue it but fine tune).

6. What other advice do you have about the program?

Evaluating a service for children
1. Introduce yourself and tell us how you learned about this service.
2. Think back to when you first became involved with these services. What were your first impressions of the service?
3. What has been particularly helpful about the services your family has received?
4. What has been frustrating about the services?
5. What has your child liked about the experience?
6. What has your child *not* liked about the experience?
7. Some of you may have had experiences with other services for your child. How does this approach compare with other services you've experienced? Is it any different? How so?
8. What would make the services work better?
9. Is your child any different because they have received these services? If so, how?
10. Is your family life any different because you received these services? How?
11. If you had a chance to give advice to director of this program, what would you say?
12. Based on your experiences, would you recommend these services to other parents?

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can be easily covered in five minutes. Key questions may be complex or include activities. A key question can take 15 to 20 minutes to answer. Once we have estimated times for each of the questions, we add up the total to determine whether we should add or delete questions.

3. Send the draft questioning route to the team for feedback. Ask the brainstorming team the following questions: Will these questions get us the information we need? What have we missed? What can be deleted? Are these the words participants would use? Does the flow make sense? Then the researcher can revise the questioning route based on feedback.

It is important to remember that the same questions are asked in all the interviews with the same audience. However, if separate groups are going to be conducted for different audiences, a slightly different questioning route might be used for each. For example, the

researcher might ask students a question that he or she does not want to ask parents or teachers. Nevertheless, the researcher needs to keep a core set of questions the same in each questioning route so that responses can be compared across audiences.

Phrasing and Sequencing Questions

Care is needed in the phrasing and sequencing of the questions. Focus group questions are distinctive. When developing questions, the researcher should keep in mind several guidelines:

Use open-ended questions. Most of the questions in the focus group are open-ended or non-directive. These questions deliberately give the participants as much latitude as possible for their responses. Be cautious of phrases such as "how satisfied" or "to what extent" because these words limit the range of responses.

Examples of open-ended questions include: What did you think of the program? How did you feel about the conference? Where do you get new information? What do you like best about the proposed program?

Avoid questions that can be answered with a "yes" or "no." If the question can be answered with one word, the researcher should revise the question. One-word answers usually lack the desired detail.

Avoid "why?" questions. "Why?" seems demanding and makes people defensive. Instead, the researcher can ask about attributes and influences. Attributes are characteristics or features of the topic. Influences are things that prompt or cause action. Try questions such as: "What prompted you to try…?"

Use "think back" questions. Take people back to a specific time to get information based on experience. "Think back to the last time you visited the clinic…." "Think back to when you had your first baby…." "Think back to when you first planted…."

Use different types of questions. Five types of questions are asked in focus groups: (1) opening questions (answered by everyone), (2) introductory questions, (3) transition questions (move participants to key questions), (4) key questions (address one of the fundamental issues of the study), and (5) ending questions (get a final viewpoint from participants on key topics). Not all questions are the same. Some are designed to get people talking. They are easy for everyone to answer. Others move participants to the key questions that are the most important. At least half of the focus group's time should be spent on key questions. Ending questions help wrap up the discussion (box 2).

Use questions that get participants involved. Participants can do more than talk. Ask them to try a product or a task and talk about it. Or ask them to draw a person who uses the program or service that is the subject of the focus group. Have them rate different ideas. Remember to take into consideration reading and writing abilities before using certain types of questions.

Box 2.   Examples of Ending Questions

Several questions are particularly effective at the end of the focus group. These questions help the researcher get a final viewpoint from participants on key topics. Consider using one or more of these ending questions:

All-things-considered question. This question asks participants to reflect on the entire discussion and then offer their positions or opinions on topics of central importance to the researchers. For example: "Suppose that you had one minute to talk to the head of X about this topic. What would you say?" Or "Of all the things we discussed, what to you is the most important?"

Summary question. The assistant moderator often gives a short summary of the focus group near the end. After the brief oral summary, the moderator asks: "Is this a good summary of what was said here today?"

Final question. The moderator reviews the purpose of the study and then asks the participants: "Have we missed anything? Is there anything we should have discussed that we didn't?"

Focus the questions, sequencing them from general to specific. As a rule, the questions tend to begin with general and broader topics and move to more specific categories. For example, if a researcher were doing a focus group on a specific brand of cola, he or she might begin by asking about beverages, then sodas, then colas, and finally about the specific brand.

Recruiting

The researcher has the plan and knows the questions that he or she is going to ask. The next challenge is to find the right people and get them to attend the focus groups.

The first step in recruiting participants is to identify as precisely as possible the characteristics of the target audience. A basic principle of focus groups interviewing is that the researcher controls attendance. The researcher invites people because they meet the "screens" or qualifications of the study devised in the planning stages. Participants are selected and invited because they have certain experiences

or qualities in common, not simply because they are interested in attending. Participants may have taken part in a community program that the researcher is evaluating; they may be residents in a community in which the researcher is doing a needs assessment; or they may be farmers who have adopted improved agricultural practices.

One of the challenges of focus group research is getting people who are not interested in the study to participate. They may be apathetic, indifferent, or even consider the topic to be irrelevant. However, if the researcher limits the study to those who show interest in the topic, the results may be biased. To be successful, the researcher will need to do three things: (1) find a pool of participants, (2) develop a sound recruiting procedure, and (3) devise incentives to increase attendance.

Finding a Pool of Participants

Typically**,** we find a pool of people who meet our selection requirements, and then we randomly select individuals to invite from that pool. For example, we might invite every fifth name on a list or every tenth person who enters a health clinic. Here are several different ways to find a pool:

- *Find a list of people who fit the selection criteria.* Think about community members (or organizations) who might have a list.
- *Piggyback on another event that attracts the type of people desired.* Do all farmers in a certain area get together for a particular event?
- *Recruit on location.* Invite every fifth person who arrives at the clinic.
- *Encourage nominations.* Ask key people, such as elders, educators, or service providers, whom they know who fit the selection criteria.
- *Snowball samples.* Once the researcher finds some people who fit the selection criteria, ask them for names of other people who fit the selection criteria. Put the names in a pool.
- *Place advertisements in newspapers and on bulletin boards.*

Developing a Recruiting Procedure

Successful recruiting has two distinct qualities. First, the process should be personalized. Each invited person should feel that he or she has been personally asked to attend and share his or her opinions. Second, the invitation process is repetitive. Invitations are given not just once, but two or three times. A typical recruiting process follows:

Set meeting dates, times, and locations for group interviews. Most groups with adults are scheduled for two hours. Focus groups with children are usually shorter. Do not schedule more than two groups in one day unless you have multiple moderators.

Recruit potential participants by telephone or in person. Before beginning the recruiting, the researcher needs to be clear on how he or she will describe the study. People will want to know the purpose of the discussion, who wants the information, what the sponsor of the study is going to do with the information, and why they are being asked to participate.

Usually, we do not use the word "focus group" when inviting participants, as the term can be intimidating. Instead, we say we are getting together a few people to talk about the topic. Do not use jargon in the invitation. In most cases, the invitation should sound like it will be an easy, comfortable, interesting conversation.

Think about who should offer the invitation. Will people be more willing to participate if someone from their community or village invites them than if a stranger invites them? Or would people feel honored to be invited by a head of a local organization? People are more likely to say yes if someone they know and respect invites them to participate. If that is not possible, it helps to be able to refer to a person whom they know and respect as supporting the study. An invitation with this phrasing brings results: "The deputy minister (or the community health nurse) said you might be able to help us. We are getting together some people to talk about (name of topic)."

Soon after the person has agreed to participate, send him or her a personalized letter. Do not use a generic salutation such as "Dear friend." This letter should thank the person for agreeing to participate and confirm the date, time, and place of the focus group. In certain cases, the recruitment and the meeting time are close together in time. In these cases, the personalized letter is not possible, but it may be helpful to give those agreeing to participate a one-page fact sheet with the details of the study.

Telephone or contact each person the day before the focus group to remind him or her of the group. "I'm looking forward to seeing you tomorrow at…."

Sometimes recruiting is done just before the focus group is held. For example, the researcher might find the pool of participants at a festival or community event at which many people have gathered. As people arrive at the event, a limited number can be invited to join the discussion. If many qualified participants are present, the researcher might randomly select those who will participate. In this scenario, it would be a good idea to arrange for a special place to hold the focus group where the participants will not be disturbed by the surrounding events.

Getting People to Attend: Incentives

The researcher should think about what might make it hard for people to attend and try to eliminate these things. If appropriate and possible, provide transportation and childcare.

The researcher should also think about what might entice people to participate and offer some or all of these things. He or she can ask a few people who are similar to the target audience what it would take to get them to come. Incentives that have been used to encourage people to participate include:

- Money (we will pay you).
- Food (there will be something to eat).
- Gifts (we have a gift for you).

- Compliment (others value your insights).
- Honor (we value your opinions).
- Enjoyment (you will have a nice time).
- Community (your participation will help the community).

Moderating

The challenge of moderating is making people feel comfortable enough to share in a group what they think and how they feel. Participants must trust the moderator, the process, and the sponsoring organization, and they must believe that the results will be used in a positive way. The moderator must know when to wait for more information and when to move on. The moderator must be able to control dominant speakers and encourage hesitant participants. The moderator must respect the participants, listen to what they have to say, and thank them for their views even when the moderator may personally disagree with those views.

Moderator Skills

The moderator should have enough knowledge about the topic to understand what the participants are saying. He or she does not need to be an expert on the topic but should understand common terms that will be used in the discussion.

It sometimes helps to have a moderator who looks like the participants. This can make the participants more comfortable and give the impression that "this person will understand what I have to say." The researcher should consider things like gender, age, race, and ethnicity. For some topics, these issues may not matter, but for other topics they are very important. For example, women may be more willing to talk about breastfeeding with a woman than a man. As mentioned before, the moderator should be fluent in the participants' language.

Other things that the moderator should do include:

Be mentally prepared.
- Be alert and free from distractions. The

moderator should arrive early so he or she is relaxed and ready to listen.

- Have the discipline to listen. Beginning moderators are often delighted that people are talking and do not notice that the participants are not really answering the questions. As the moderator listens, he or she needs to determine whether participants are really answering the question. If not, the moderator should refocus their attention on it.
- Be familiar with the questioning route. Know which questions are the most important and which can be dropped if time is running out.

Work with an assistant moderator.
- An assistant moderator improves the quality of the groups.
- The assistant helps by handling details (for example, taking care of refreshments, monitoring recording equipment, integrate latecomers into the group).
- More importantly, the assistant helps ensure the quality of the analysis by taking careful notes, summarizing the discussion at the end, and acting as another set of eyes and ears for analysis.

Record the discussion.
- It is impossible to remember everything that is said in a focus group. The focus group can be recorded through field notes, tape recording, or with a laptop computer. The moderator will not be able to take comprehensive notes and guide the discussion at the same time.
- The responsibility for recording the focus group falls to the assistant moderator.

Use purposeful "small talk" before the group begins.
- Create a warm and friendly atmosphere. While the moderator is waiting for participants to arrive, he or she can engage those who arrive first in "small talk." These informal discussions precede the focus group interview, help put participants at ease, and foster conversation among the group. Small talk often occurs while people are standing around and before the official discussion begins.

- Small-talk topics should be easy to discuss. They can focus on what is happening locally (if it is off the topic of the focus group). If the moderator is new to the area, he or she can ask participants about the weather, geography, transportation, places to eat, or their families. The moderator's job is to make people feel welcome.

Give a short and smooth introduction.
- Welcome everyone.
- Give an overview of the topic.
- Provide any ground rules for the discussion.
- Ask the first question.

Use pauses and probes to draw out more responses.
- Be comfortable using a five-second pause. Beginning moderators are sometimes uncomfortable with silence. However, pauses encourage people to add to the conversation.
- Use probes to get more detail. Generally, more detailed information is more useful. Consider using these questions and comments: "Would you explain further?" "Can you give an example?" "I don't understand." "Tell me more."

Control one's reactions to participants.
- Do not lead participants by giving verbal or nonverbal clues as to what you do or do not like. The moderator should avoid showing signs of approval or disapproval. For example, it is often tempting for the moderator to give a broad smile and nod his or her head when hearing certain comments. Participants quickly spot this behavior and then assume that more of these "approved" comments are wanted.
- Avoid head nodding and verbal cues like "That is good" or "Excellent."
- Do not correct participants during the group discussion. If they share information that is harmful, offer the correct information at the end of the discussion.
- Do not become defensive if participants say that they think the program is horrible. Instead, the moderator should try to get information that will help him or her understand their perspective.

- Save unplanned questions for the end. Sometimes new and unanticipated questions will occur to the moderator. There is a risk in asking these questions during the focus groups, as they might interrupt the sequence of the planned questions and throw participants off topic. Save these questions and ask them at the end of the focus group discussion.

Use subtle group control.
- The moderator's job is not to make sure everyone speaks the same amount in a group. However, everyone should have the opportunity to share. Some people will have more to say. If they are answering the question and giving new and useful information, let them continue.
- Control dominant talkers by thanking them for their input and asking for others to share. Remind the group that it is important to hear from everyone.
- Call on quiet participants. They are often reflective thinkers and have wonderful things to offer. Invite them to share with something like, "Maria, I don't want to leave you out of the discussion. Is there something you would like to add?"

Conclude with a summary and final questions.
- Summarize the key points of the discussion and ask for confirmation. Usually, the assistant moderator does this. (Do not summarize the entire focus group, but instead summarize three to five of the most important points.)
- Review the purpose and ask if anything has been missed.
- Thank the participants and conclude the session.

Beginning the Focus Group Discussion

The first few moments in a focus group discussion are critical. In a brief time, the moderator must create a thoughtful, receptive atmosphere; provide ground rules; and set the tone of the discussion. Much of the success of group interviewing can be attributed to creating an open environment.

The recommended pattern for introducing the group discussion includes a welcome, an overview of the topic, the ground rules, and the first question (box 3).

Expectations of the Assistant Moderator

It is helpful to have a second member of the research team present in the focus group. We call this person the assistant moderator or the reporter. Because there is so much going on in the focus group the moderator often is not able to lead the discussion, observe, and take notes at the same time. The assistant helps with the arrangements, takes careful field notes, and assists with the analysis.

Assistant moderators typically take responsibility for the following:

- *Equipment.* Ensure that needed equipment is available and working. This includes recorders, microphone, tapes, and handouts.
- *Refreshments.* Arrange for food (either complete meals or snacks) and beverages to be available on time.
- *The room.* Arrange chairs and table and be attentive to background noises that would affect the audio recording as well as room temperature and lighting.
- *Welcoming participants as they arrive.* Act as the hosts and make participants feel welcome and comfortable.
- *Sitting in a designated location.* Sit outside the circle, opposite the moderator, and closest to the door, so that they can greet those arriving late, briefly telling them what has been discussed so far, and find them a place to sit.
- *Taking notes throughout the discussion.* Capture the details of the group interaction in their notes.
- *Not participating in the discussion.* Speak only if invited to by the moderator. Control their nonverbal actions no matter how strongly they feel about an issue.
- *Asking questions when invited.* At the end of the discussion, ask questions of amplification or clarification when invited to by the moderator.
- *Giving an oral summary.* Provide a brief oral summary (about three minutes) and invite

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Box 3.   Example of a Typical Introduction

"Welcome! Thank you for joining us to talk about education. My name is Richard Krueger, and this is Peter Wyet. We are working with the Department of Education. We know that most teenage boys from this school district do not graduate from high school. We want to find out what can be done to help these young people stay in school. The Department of Education will use the information we get from these discussions to design new programs specifically for boys.

"You have been invited because you are all fathers of junior high school boys. Also, each of your sons has missed several days of school in the past month. We would like your thoughts on what might be causing this and what could be done to keep your sons in school. We will also be talking to junior high age boys, mothers, teachers, and community leaders.

"There are no wrong answers. We expect that you will have differing points of view. That is okay. You do not have to agree. Please feel free to share your point of view even if it differs from what others have said.

"You have probably noticed the microphone. We are tape-recording the session because we do not want to miss any of your comments. People often say very helpful things in these discussions, and we cannot write fast enough to get them all down. We will not use any names in our reports, and we will keep what you say confidential.

"I have about a dozen questions to ask. My job is to listen and to make sure everybody has a chance to say what he wants to say. You do not need to respond directly to me all the time. Feel free to follow-up on something someone else says. You may want to add something or share a different experience. I will ask a question, and then you can feel free to have a conversation about it.

"Well, let us begin. Let us find out some more about one another by going around the table. Please tell us what grade your son is in and one of his favorite things to do when he is not in school."

Note: After the first question is completed, it is helpful to say, "We will not be going around the circle anymore, so just feel free to jump into the conversation whenever you want." If the moderator continues to go around the table, discussion becomes boring, and participants tune out.

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participants to offer additions or corrections to the summary.

- *Discussing the focus group with the moderator.* Discuss overall impressions, notable quotes, key ideas or insights presented, and how this group compared to other groups.
- *Giving feedback on the analysis and report.* Offer valuable insights into the analysis. In some circumstances, assistant moderators may actually provide leadership for the analysis. At a minimum, the assistant should be in close contact with the person coordinating the analysis and be one of the first readers of the finished report.

Capturing the Data

Thought must be given to capturing the comments of the focus group participants. Multiple methods are recommended because no single method is perfect. An examination of alternative methods of capturing data follows:

- *Memory* is the most fallible. Memories of the moderator and the assistant fade quickly and can be prone to distortion. Memory will be one of the methods used, but it should not be the only method.
- *Field notes* can capture meaningful quotes plus the content of the discussion. The field notes of the assistant moderator should be expected to capture details of the group, whereas the field notes of the moderator will be sketchy.
- *Audio tape recording* is recommended whenever possible. Standard audiocassette recorders are low cost and reliable. To ensure the best sound quality, use a microphone that is separate from the audiocassette recorder.
- *Video cameras* are useful in some circumstances, but be cautious because there is a tendency for people to be apprehensive and less candid on video.
- *Laptop computers* used by a fast typist can be used to capture a nearly complete transcript in real time.

The researcher's choice of methods will depend on resources and circumstances. At

minimum, we recommend memory, field notes, and audio tape recording.

Analysis

The analyst must take the data and find what is meaningful to the purpose of the study, so that the results can be used. Not all studies require the same level of analysis. One of the skills that beginning analysts must learn is to match the level of analysis to the problem at hand. Some of the choices are listed in table 1. A complex study in which the researchers are trying to understand how different types of people think or feel about a cultural practice may require transcript-based analysis. However, if researchers are trying to determine which of three sets of educational materials is more appealing, analysis based on notes may be all that is required. No matter what level of analysis is selected, breaking analysis into manageable chunks keeps the material from becoming overwhelming. The analyst must look for the major themes that cut across groups as well as a key insight that might have been shared by

only one person. This is possible only if the analyst has a clear understanding of the purpose of the study.

Systematic Analysis Process

Focus group analysis should be systematic. Analysts should develop a protocol that follows a predetermined and verifiable set of steps. There is no single "best" systematic process. Box 4 gives an example of a systematic analysis process that we have often used. Notice that the process begins while the first focus group is still being conducted and continues past the last group.

Focus Group Analysis Tips

When analyzing focus group data, the analyst needs to consider many different aspects of the focus group and its participants' responses, including words the participants use in the discussion, context, internal consistency of the participants' views, frequency of comments, degree of agreement on a topic, intensity of

Table 1. Analysis Choices

Analysis type	Memory-based analysis	Note-based analysis	Tape-based analysis	Transcript- based analysis
Description	Moderator analyzes based on memory and past experiences and gives oral debriefing to client.	Moderator prepares a brief written description based on summary comments, field notes, and selective review of tapes.	Moderator prepares written report based on an abridged transcript after listening to tapes, and consulting field notes and moderator debriefing.	Analyst prepares written report based on complete transcript, with some use of field notes and moderator debriefing.
Oral or written reports	Usually oral report only.	Usually oral and written report.	Usually oral and written report.	Usually oral and written report.
Time required per group	Very fast: within minutes following the discussion.	Fast: within 1-3 hours per group.	Fast: within 4-6 hours per group (includes time for completing abridged transcription).	Slow: about 2 days per group (includes time for completing full transcription).
Perceived level of rigor	Minimal.	Moderate.	Moderate to high.	High.
Risk of error	High.	Moderate--depends on quality of field notes.	Low.	Low.

Box 4.   Example of a Systemic Analysis Process

The analyst(s) should:

1. Start while still in the group.

- Listen for vague or inconsistent comments and probe for understanding.
- Consider asking each participant a final preference question.
- Offer an oral summary of key findings and inquire if the summary is correct.

2. Prepare for analysis Immediately after the focus group.

- Draw a diagram of seating arrangement.
- Spot check tape recording to ensure the recorder picked up the discussion. If the tape does not work, immediately take time to expand written notes. Recreate as much of the discussion as possible.
- Turn the tape recorder back on and record the observations of the moderator and assistant moderator.
- Discuss issues such as: What seemed to be the key themes of this discussion? What was surprising? How did this group compare with prior groups? Do we need to change anything before the next group? Note hunches, interpretations, and ideas.
- Label and file field notes, tapes, and other materials.

3. Analyze the individual group within hours of completion of the focus group.

Analysts can proceed with or without transcripts.

Option 1: Transcript-based analysis
- Make back-up copy of tapes and send tape to transcriber if necessary.

- Listen to the tape, review field notes, and read transcript if available.
- Use transcripts as the basis for the next steps.

Option 2: Analysis without transcripts
- Prepare summary of the individual focus group in a question-by-question format with amplifying quotes.
- Share report with other researchers who were present at the focus groups for verification.
- Use summaries as the basis for the next steps.

4. Analyze the series of focus groups within days of the last group.

- Analyze groups within a category (for example, first analyze the groups of parents, then the groups of teachers, then the groups of students).
- Analyze groups across categories (for example, compare and contrast the parent groups with the teacher and student groups).
- Look for emerging themes by question and then overall.
- Construct typologies or diagram the analysis if appropriate.
- Describe findings and use quotes to illustrate.

5. Prepare the report.

- Consider narrative style versus bulleted style.
- Use a few quotes to illustrate each important point.
- Sequence could be either question by question or by theme.
- Share report with other researcher(s) for verification of findings.
- Revise and finalize report.

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feeling toward a topic, specificity of responses, and "big ideas" that emerge from the discussion.

Words. Think about both the actual words used by the participants and the meanings of those words. Some words are powerful, colorful, or very descriptive. Different participants will use different words and phrases, and the analyst will need to determine the degree of similarity among these responses.

Context. Participant responses were triggered by a stimulus—a question asked by the moderator or a comment from another participant. Examine the context by finding the triggering stimulus and then interpret the comment with its environment in mind. The response should be interpreted in light of both the preceding discussion and the tone and intensity of the oral comment.

Internal consistency. Participants in focus

groups sometimes change, and even reverse, their positions after interaction with others. This phenomenon rarely occurs in individual interviews due to a lack of interaction from other participants. When there is a shift in opinion, the researcher typically traces the flow of the conversation to find clues that might explain the change. What seems to have prompted the change?

Frequency. Frequency is the measure of how often a comment was made. Frequency alone does not tell us how many *different* people made this particular comment. Indeed, the same person may have made the same, or similar, comments 10 times within the course of a single discussion. Do not assume that frequency is an indicator of importance. It is not necessarily true that items that are discussed most often are most important.

Extensiveness. Extensiveness is the measure of how many different people made a particular comment. This measure gives the analyst a sense of the degree of agreement on a topic. Unfortunately, it is impossible to determine extensiveness using only the transcript unless names are attached to comments. If the analyst was present in the focus group, he or she will have a sense of the degree of extensiveness, and this can be captured in the field notes. In focus group analysis, extensiveness is a more useful concept than frequency.

Intensity. Occasionally, participants talk about a topic with a special intensity or depth of feeling. Participants will sometimes use words that connote intensity or tell the moderator directly about their strength of feeling. Intensity may be difficult to spot with transcripts alone because the voice tone, speed, and emphasis on certain words are key to communicating emotion. Individuals will differ in how they display strength of feeling. Strong emotion may be evident in fast, excited speech in some people and in slow, deliberate speech in others. Pay attention to what is said with passion or intensity.

Specificity. Responses that are specific and based on experiences should be given more

weight than responses that are vague and impersonal. To what degree can the respondent provide details when asked a follow-up probe? Greater attention is often placed on responses that are in the first person as opposed to those in the hypothetical third person. For example, "I feel the new practice is important because I have used it and been satisfied" has more weight than "These practices are good and people in the area should use them."

Finding big ideas. One of the traps of analysis is focusing so much on the detail that the analyst misses the big ideas. Step back from the discussions by allowing extra time for big ideas to percolate. For example, after finishing the analysis, the researcher might set the report aside for a brief period and then jot down the three or four of the most important findings. Assistant moderators or others skilled in qualitative analysis might review the process and verify the big ideas.

The Old-Fashioned Analysis Strategy: Long Tables, Scissors, and Colored Marking Pens

An analyst who has not analyzed focus group data before may want to try this strategy. It is a concrete way of categorizing and "seeing" the data. After the analyst understands this method, it is easier to understand how this process can be accomplished using computer software. The equipment needed includes two copies of all transcripts, scissors, tape, lots of room with long tables and possibly chart stands, large sheets of paper (flip charts, newsprint paper), colored marking pens, and stick-on notes. This analysis strategy has 10 components:

1. Prepare the transcripts for analysis. The analyst will save time and agony later if he or she is careful in preparing the transcripts. Be sure they follow a consistent style. For example, single-space comments and double-space between speakers. The moderator's comments should be easily identifiable by bolding, capitalizing, or underlining.

2. Make two copies of each transcript. One will be cut up, and the other one stays intact for

later reference. At this point, the analyst may want to follow a tip that will be useful at later stages of the analysis. Consider printing transcripts on different colors of paper and color-coding by audience type or category. For example, copy the comments of teenagers on blue paper and those of parents on green paper. In addition, use a marker to put one line down the right margin of each page of the first parent transcript, two lines down each page of the second parent transcript, three lines down each page of the third parent transcript. This way, once the analyst has all of the transcripts cut up, he or she can easily see that a quote on green paper with two lines down the side came from the second parent group. To take this one step further, most word processing programs allow numbering each line.

3. Arrange transcripts in an order. The order can be based on the sequence in which the groups were conducted, but transcripts are more likely to be arranged by category of participant or by the demographic screening characteristics of participants (for example, users, non-users, and employees, or teens, young adults, and older adults). This arrangement helps the analyst to be alert to changes that may be occurring from one group to another.

4. Read all transcripts at one sitting. This quick reading reminds the analyst of the entire scope of the focus groups and refreshes his or her memory of where information is located, what information is missing, and what information occurs in abundance.

5. Prepare large sheets of paper. Use a large sheet of paper for each question. Place the large sheets on chart stands, on a long table, or on the floor. Write the question at the top of the sheet.

6. Cut and tape. Read responses to the same question from all focus groups. Cut out relevant quotes and tape them to the appropriate place on the large sheet of paper. Look for quotes that are descriptive and capture the essence of the conversation. Sometimes there

will be several different points of view, and the analyst can cluster the quotes around these points of view. The quality and relevance of quotes will vary. In some groups, the analyst may find that almost all of the quotes can be used, but in other groups, there will be few usable quotes. Set the unused quotes aside for later consideration. If a participant's comments are really addressing another question, tape the comment under the question it addresses.

7. Move similar quotes into categories or "piles." As the analyst reads each quote, he or she needs to reflect on whether it is similar to or different from other quotes already assembled and put similar quotes together. If a quote raises different issues or ideas, then create a new category and a separate pile for this information.

8. Write a statement about each question. Look over the quotes and prepare a paragraph that describes responses to that question. A number of possibilities may occur. For example, the analyst may be able to compare and contrast differing categories. There may be a major theme and a minor theme. The analyst may discuss the variability of the comments, or even the passion or intensity of the comments. Following the overview paragraph, several additional paragraphs may be needed to describe subsets of views or to elaborate selected topics. Compare and contrast how different audiences (for example, parents, teachers, students) answered the question. (If the analyst color-coded the transcripts, then the colors easily help him or her "see" how the different audiences answered the questions.) When finished, go on to the next question.

9. Take a break. Get away from the process for a while. Refocus on the big picture. Think about what prompted the study. It is easy to get sidetracked into areas of minor importance. Be open to alternative views. Be skeptical. Look over the pile of unused quotes. Think about the big picture.

10. Prepare the report. Invite a research colleague to look over the report and offer feedback.

Transcribing Focus Group Interviews

In transcribing focus group interviews, keep these suggestions in mind.

Use quality playback equipment. The typist should avoid tape players with small speakers and awkward buttons. Earphones sometimes provide greater sound clarity. Focus group interview tapes *always* have background noise, and participants speak with different tones and voice levels. Therefore, these tapes will require concentration and the best quality playback equipment that can be obtained. If possible, use equipment with a tape speed control and foot-operated rewinding.

Minimize distractions. Type transcripts in a place with minimal distractions or interruptions.

Identify moderator statements. Use bold print for the moderator's statements and questions. If needed, type the name of each speaker followed by his or her comment. (If the person doing the analysis was not in the groups, it will be helpful to have the names attached.) Single-space the comments and double-space between speakers.

Type comments word for word. People do not talk in complete sentences. Insert punctuation where it seems appropriate. Avoid the temptation to add or change the words, or to correct the grammar. If some of the words are unintelligible, type an ellipsis ("...") to indicate that words are missing from the transcript.

Note special or unusual sounds that could help analysis. For example, note laughter, loud voices, or shouting in the transcript in parenthesis.

Allow sufficient time. Typically, it takes about 8 hours to transcribe a 60-minute tape. But the time will vary with the typist's speed, the quality of the tape recording, the length of the session, the experience of the typist with focus groups, and the complexity of the topic.

Special Topics

Involving the Community in Focus Group Research

In the past decade, a variation of focus group research has emerged that engages the community in the study. In these studies, the researcher takes on a different role. Instead of being the outside expert coming in to conduct the study, the researcher becomes the facilitator, teacher, coach, and mentor. The researcher works with, teaches, and guides one or more people from the community who, in turn, recruit participants, conduct focus groups, and help with the various aspects of the focus group study. These community members can be volunteers but often are employed for the duration of the study.

Many of these community-based studies have been on topics relating to policy development, community development, or prevention (drugs, teen use of alcohol, teen pregnancy, violence). In these studies, the researcher trained and supervised local people who took on specific tasks in the focus group study. As mentioned earlier, if the researcher does not know the language of the target audience, he or she should seek out a local person who is trusted by the target audience and fluent in the local language. This person should receive training and coaching from the researcher and then be sent out to conduct the focus groups.

Some tasks are easier to share with people in the community than others. Among the easier tasks are:

- *Recruiting.* Invite people to attend the focus group (in person or on phone) with written follow-up reminders.
- *Moderating.* Guide the discussion in several focus groups using predetermined questions.
- *Recording.* Take notes, listen to the focus groups, and assist the moderator.

Other tasks can be more complicated and require more time, skill, and practice. These include:

- *Planning.* Develop the overall strategy and determine the time schedule, budget, and groups to be conducted.
- *Developing questions*. Determine the questions to be used for a focus group study.
- *Testing questions.* Pilot test the focus group questions with a specific audience.
- *Transcribing.* Type the results of a focus group while listening to the audio tape.
- *Reporting.* Share written results and present an oral report with a specific audience.

Still other tasks are among the most complicated and difficult to share. These skills require considerable time to develop and perform, and they include:

- *Analyzing.* Prepare a three- to five-page question-by-question summary of the focus group or analyze across the groups and write the report.
- *Coordinating.* Overall coordination of the entire project must include all budgets, time-schedules, logistics, and equipment.

The researchers need to weigh what is gained and what might be lost if the community becomes engaged in the study. Involving the community gives several major advantages:

- Focus groups can be conducted in different languages and dialects by moderators who are trusted by the participants.
- Focus group participants (and especially the research team) feel a sense of ownership of the study.
- Because the community members have muted the bias that might occur from the sponsoring organization, results can be more authentic.
- The results are deemed more believable and trustworthy by local residents because they were familiar with the people conducting the study.
- Local team members gain skills.

However, involving the community in focus group research has some disadvantages. For example, the studies may take more time because the researcher must recruit, train, and supervise the team. In addition, the research team members may interpret results differently than would the expert researchers (although this could also be an advantage).

Involving the community in focus group research often works best in situations in which local people are able to obtain information otherwise unavailable to researchers, help stretch scarce resources, increase the likelihood that the results will be used, and develop new skills or insights about their community.

Telephone Focus Groups

Focus group discussions can be conducted on the telephone. With a conference call, a moderator can carry on a focus group discussion with people scattered around the country. The primary advantage of a telephone focus group is that it allows greater potential for participation. This is particularly true for busy people or people who are geographically dispersed.

The principle disadvantage of telephone focus groups is that the researcher misses the nonverbal communication. Much is gained in focus groups by bringing people together and being able to observe the participants' reactions—head nodding, signs of boredom, smiles, frowns, alertness, interest in the topic—all of which are lost on the telephone. In effect, a telephone focus group will lack the richness of in-person focus groups.

In comparison to in-person focus groups, telephone focus groups are shorter and have fewer participants and questions. In most situations, two hours is too long to be on the telephone. We recommend one-hour telephone focus groups. Because we have less time, we recruit only four to six people for a phone focus group and limit the number of questions. We also send out the questions ahead of time, which seems to make the limited time more productive. The advance preparation helps the participants know the direction in which we are heading, know what they want to say, and

stick with us mentally, even when we are not together physically.

Some have argued that telephone focus groups are less intimidating because participants cannot see one another. As a result, there may be greater clarity of language because of the absence of eye contact, gestures, and nonverbal signals. Participants cannot detect signals of approval or disapproval from other participants or the moderator. The difficulty is that the moderator has limited ability to detect whether someone is "tuning out" of the conversation and paying more attention to reading the newspaper, reviewing documents, or working on a computer. In summary, the moderator has no reliable indicator of the degree of attention that a participant is giving to the discussion.

If the researcher chooses to use telephone focus groups as the discussion format, it is useful to keep several suggestions in mind (see box 5).

International Focus Groups

Increasingly, focus group research is being conducted in cross-cultural and international

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Box 5. Tips for Telephone Focus Groups

- Invite a small group of only four to six people.
- Send questions or discussion topics to the participants in advance of conducting the focus group. Include any visuals, with each item labeled and in the order that they will be used.
- Limit questions to five to eight.
- If voices are not recognizable, ask participants to identify themselves before speaking.
- Limit discussion to about 60 minutes.
- Call on people who are not audibly participating.
- Consider asking participants to reflect for a moment or to jot down something on a piece of paper and then read the comments. It is fine to include questions that ask participants to rate or assign values to ideas or things. Keep the scales simple and logical.
- Include ending questions such as the "all things considered" or the "have we missed anything?" question.

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situations. The focus group, which has gained considerable popularity among Western developed countries, has been found to have distinct advantages in developing countries as well:

- Participants do not need to be literate.
- Focus groups do not depend on mail service or telephone systems.
- The process is familiar in that it resembles the decisionmaking process of many cultures. Having a small group of people talk about a current topic of interest is a very basic interaction.

However, the task of conducting focus groups in developing country settings is beset by a number of challenges that researchers should consider.

Power differentials. The first and most important challenge is the power differential between focus group participants and the sponsor. The sponsors of most international focus groups are organizations that control resources, people, or power. This power differential in conjunction with cultural differences has the potential to create communication problems.

These power differentials almost always cause difficulties in focus group research. For a focus group to work, participants must be able to talk without feeling threatened or fearing future reprisal. The researcher must set up the focus group so that there is no obvious advantage or disadvantage to providing either positive or negative information. The researcher must clearly communicate that all points of view are valued and appreciated. This clear communication of openness begins with the first contacts with community leaders, continues as participants are recruited, and is repeated when the group begins. Researchers should anticipate that they might hear points of view that are critical of the sponsoring agency or upsetting to themselves. The moderator must take care not to show emotional reactions when participants offer negative views on a program. It is often advisable for the moderator *not* to be a person who has traditionally represented the international organization, because there is a tendency for participants to hold back

from giving negative feedback to people in influential or powerful positions.

In some cultures, the norm is to avoid criticism, particularly when outsiders are present. There are at times severe consequences for openly sharing one's views, and such sharing is restricted to the closest relationships. A questioning strategy that sometimes works is to depersonalize the answer by asking what others are saying. For example, "What do others say about this topic?" or "When people are critical of this program, what do they say?"

The researcher should think carefully about who is the best person to moderate the group and avoid anyone who occupies a position of power. Sometimes local residents are able to lead the group discussion, and in other situations the international guest researcher is quite capable and non-threatening.

Local language. Language also can be an issue. It is important that the researcher conducts the groups in the primary language of the participants and avoids interpreters. This means that the moderator should be fluent in the language. If the moderator is not fluent, then the researcher must find someone who is fluent and train him or her to lead the group. Notes should be taken in the same language that the moderator is using, and then the notes or tape recording translated back into the language of the report.

Sense of control. One area in which variation can occur is the participants' sense of control. Some individuals feel that they have control over their social, political, and economic environment and that individuals can and ought to make needed changes. Others feel that someone has control, but that they personally do not. Still others feel that no one has control, or that one should not tamper with fate but rather accept what occurs as the will of a higher power. If the researcher is examining a public program or the consequence of a policy decision, focus groups might offer different perspectives based on their philosophical orientation. In fact, we argue the participants may not even understand the questions posed to them because they are so different from their

worldview. Questions need to be constructed carefully, and the study introduced in a manner appropriate to the cultural environment.

Therefore, the researcher needs to plan the study carefully and talk to locally influential figures early in the planning process. It is also important to listen to local wise people about timing, locations, and other factors relevant to the study.

Sense of time. It is important to be sensitive to how the participants relate to punctuality and time schedules. Starting times and the length of the group may take on different levels of importance in various countries.

Feeling of exclusion. When doing focus groups in villages or close-knit communities, some special problems may emerge. One concern is that some people will feel left out of the process. People may be offended because they were not invited. Suppose the researcher is doing a study on new farming practices and is inviting farmers who have been slow or reluctant to adopt new practices. Progressive farmers may feel upset because they were not invited to talk about this topic that has been of great interest to them. Locally important figures may also be upset because traditionally they have been involved in local decision-making, and they were not involved in the focus group. Finally, some people do not feel that the results are believable unless they personally have given their views.

The researcher should give thought to these potential problems and consider one or more of the following solution strategies:

- *Do focus groups with local experts or influential figures even if they are not the target of the study.* They may have valuable insights into the problem that could enrich the study; moreover, they could block progress if they are not involved. (Later, the analyst will want to keep the groups separate and not aggregate results across groups.)
- *Gather information in other ways.* The researcher can use a combination of focus groups, individual interviews, surveys, and group meetings. He or she can explain that

people are being involved in a variety of ways: some will be in focus groups, while others will be asked to be in individual interviews or surveys.

- *Add several additional focus groups at the end of the study.* These focus groups are different in that they are open to anyone in the community. Concentrate the analysis on the early focus groups that are conducted using careful procedures. At these final groups, listen particularly for points of view that have not been expressed in the earlier focus groups. Some caution is needed in interpreting the comments given at group meetings because the tendency is for certain individuals to "perform," to give positions for political reasons, or to give views to impress others in the community.
- *Invite the community to attend a meeting at which the results of the focus groups are presented.* Present the themes and trends found in the focus groups to the community and invite the members of the community to comment on the findings and discuss strategies to deal with the issues raised.

Benefits for the participants. Finally, consider how the study can benefit the participants. Will study results be shared with participants? Will the study inform policy or future decisions?

Summary

Focus groups can be a powerful learning tool. They can help organizations listen to their employees and to the people whom they serve. They can be used to assess needs and assets, develop social marketing efforts, pilot test ideas and products, and evaluate services or programs. However, researchers must carefully recruit participants, create a comfortable environment so that people feel safe to talk, choose the right moderator for the group, and record and analyze the data systematically. Above all, the researchers must respect the participants. The researchers must believe they have something to learn from the participants and be open to hearing what is shared.

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3. Using Q-Sorts in Participatory Processes: An Introduction to the Methodology

Jonathan C. Donner

It is not that simple.
She sees the issue differently than you do.
It is a challenge to get our arms around this
complex problem.

As a professional working in international development, you probably hear these phrases all the time. If you are involved in social development, participation or civic engagement, you probably utter these phrases all the time. When tackling complex, multidimensional development challenges, like prioritizing economic plans for a region, articulating a vision for a village, or clarifying a mission for a department or a project, it seems that there can be as almost as many perspectives on an issue as there are stakeholders.

For many of us, it is critical to make these different perspectives discussible, as an early step in a collaborative effort to help construct action plans that most stakeholders can embrace. Qualitative tools to capture these perspectives can be detailed, rich, contextual—and also messy, time-consuming, and difficult to administer consistently. Quantitative surveys can be clear and methodical—and also oversimplified, rigid, and unwieldy. Certain situations call for a tool that combines the richness of interviews with the standardization of a survey.

This chapter is an introduction to a technique called Q-methodology, which can help fill this gap in a practitioner's toolkit (Brown 1980; McKeown and Thomas 1988; Stephenson 1953). Q-methodology allows a researcher to explore a complex problem from a subject's point of view: in a Q-sort, participants weight statements, in response to a question, in accordance with how *they* see the issue at hand. Since the same Q-sort can be given to different people, a researcher can look at the patterns of responses to uncover and name distinct "points of view," even within small groups. Because the results of a Q-sort analysis capture the subjective "points of view" of participants, and because the data are easy to gather, easy to analyze, and easy to present, Q-methodology is good not only as a research tool but also as a participatory exercise (Donner 1998).

This is a brief chapter. It is neither an in-depth statistical guide nor a theoretical review. Instead, it is a practical, step-by-step introduction to the methodology, such that someone with a personal computer (PC), this chapter, and a little patience can construct, administer, and analyze a Q-sort of his or her own. To ground the instructions in an example, the chapter will draw on a Q-sort administered to members of the World Bank's Social Development Family (SDV) in November 1999. At the time, Monitor Country Competitiveness (now called ontheFRONTIER) was working with the leadership of the SDV family to help them refine their position and strategic priorities within the Bank. We developed the Q-sort in close conjunction with them, as one input in

this change process. It was administered and analyzed at the start of a five-day offsite at Monitor's headquarters.[1]

Overview

After a brief overview, roughly sketching the methodology, this chapter will present four sections: construction, administration, data analysis, and interpretation. At each stage, the SDV data will be used to illustrate the steps involved.

Q-methodology was developed by William Stevenson (1953) in the 1930s and has benefited over the past couple of decades by the development of statistical packages that make its factor-analysis calculations easier to perform. For a detailed methodological and statistical exploration of Q, refer to McKeown and Thomas (1988).

Q-method requires participants to prioritize a set of 20 to 50 elements or statements in order from least to most desirable. The statements are often presented as multiple possible answers to a given umbrella question, such as: "What is an attractive outcome?" or "What is important for this group to study?" Q-methodology does not require a large number of participants—even one is worthy of review—and meaningful, discernible groups can be found with as few as a dozen participants. It is quite rare to administer a Q-sort to more than 100 participants.

Although the root of the Q is the prioritization of elements, one of its strengths is that the pattern or logic that drives the weighting of a particular statement or concept versus another does not need to be known or even hypothesized in advance. Neither do the elements have to be mutually exclusive nor completely exhaustive of all the possible concepts that could apply. The elements are assumed to be simply a subset of the possible concepts that may be important to the issue at hand, just as the participants may be considered a subset of the possible stakeholders.

Let us take a simple example to begin. If we wanted to know more about at what kind of restaurant people would like to eat on a Friday after work, we could arrange a Q-sort. We would ask the umbrella question: "Which statements best describe a restaurant you'd like to visit on a Friday after work?" We would populate the sort with 30-odd elements ranging from "costs less than $15 per person" to "is near to my home" to "has a hip clientele." Participants would be asked to sort the 30 elements in ascending order from least to most attractive. A completed sort may look like table 1, with the numbers corresponding to each element written in the answer sheet as such.

Q requires each participant to assign an *exact* number of elements to each potential value. In the example above, 2 elements were required at each of the extremes (-4 and 4), while 6 were required at the neutral point of 0. There are usually an odd number of column values to allow for the neutral column. It is also common to lump more statements in the middle.

Each person uses his or her own subjective criteria to evaluate the relative attractiveness of

Table 1. Example of Completed Sort

Value	-4 Least attractive	-3	-2	-1	0	1	2	3	4 Most attractive
Number of elements	2	3	3	4	6	4	3	3	2
Statement numbers	4	25	12	1	10	3	19	13	14
	5	11	7	20	9	8	15	6	17
		26	21	29	27	2	18	23	
				16	24	22			
					28				
					30				

each element. Participants' logic (perspective) is their own; but since you are asking the same question, using the same elements, to be placed in the same format, you can compare these subjective perspectives with more rigor than normal qualitative methods would allow.

The results of a small Q-sort like this example could be ready to analyze within an hour or so, using the freeware program PQMethod.[2] The output (discussed in more detail in the analysis section below) would tell us:

- Which criteria or elements were rated at roughly the same level (either high, low, or neutral) by most participants. We call these "consensus items."
- Which elements garnered a real split decision, meaning they were highly agreeable to some participants and disagreeable to others. We call these contention items.
- And, perhaps most interestingly, the analysis would identify distinct subgroups within the set of participants who share a similar pattern of responses (meaning members of the subgroup agreed on the contention items). Each subgroup can be said to share a similar perspective or voice about the topic.

It is up to us to infer the meaning of these outcomes. We will get to the details of that process in the interpretation section.

Construction

To create a Q-sort, you need a research topic, an umbrella question, and some elements.

Research Topic

Although the Q can fit a variety of research topics—from restaurant choices to program plans to beliefs about fairness and justice, it is especially well suited to situations in which a single "issue" is made out of subdimensions, and in which you are not necessarily sure how all these sub-dimensions fit together. Consider it more exploratory than confirmatory, more of an opener than a conclusion to a process of social inquiry. Q is effective as a way to discern the lay of the land in terms of the way stake-

holders perceive the issue you are confronting. Instead of hypothesizing relationships between items in advance and testing that structure, the researcher gleans the relationship between the items only once the sort has been completed (McKeown and Thomas 1988). Along with the easy and novel administration and fast turn-around, these theoretical elements make Q especially good for participatory processes, in which the participants and eventual beneficiaries of the analysis are one and the same (Argyris, Putnam, and Smith 1985). A bibliography of Q-related materials, compiled by Steven R. Brown and available on Peter Schmolk's QMethod Page is an excellent place to assess the breadth of research topics that have been addressed using Q.[3]

In the case of the Social Development Family, the multidimensionality of the issues surrounding of SDV's strategy were clearly evident. SDV managers were concerned with choices regarding their role as advocates in the Bank, the introduction of training, the ideal location for SDV staff (field or in Washington, D. C.), and their capacity to offer independent products directly to clients. Depending on to whom we spoke, some or all of these issues were salient—and their relative importance in charting a course for SDV was not clear. The issue of how SDV managers imagined the optimal course for SDV's development was ripe for further exploration via a Q-sort.

Umbrella Question

The umbrella question to a Q-sort should be broad enough to hold all the statements underneath. Thus, something as simple as: "Sort the statements from least attractive to most attractive" imposes no additional constraint on the participants. If you prefer, or if your research goals require it, you can use the umbrella question to bound the conditions of the sort in some way. "Where would you like to go *on a Friday night*," for example, puts participants in a frame of mind to evaluate attributes of restaurants for a particular event. Fill-in-the-blank questions can also be used, such as "In order for this department to be most effective, it must

_____" (participants are then asked to sort phases according to how well they complete the sentence). The SDV example described here assumes that the same statements will be evaluated once by a *range* of individuals, using a single umbrella question, to determine what distinct perspectives may exist on the issue. However, you may also choose to look at how *one or two* participants rank-order the same statements under a variety of conditions. This can be achieved by varying the umbrella question accordingly.

In the case of the SDV Q-sort, we wanted everyone to consider what an "effective" SDV would look like in the future but also wanted to ensure that each participant was considering the same time horizon. So, our umbrella question set the scene:

> After an especially long journey back to DC for a Social Development meeting, you awake in the morning to find you've really overslept. It is December 2002. You arrive at 1818 H St. and find your colleagues to see what they've been up to. As it turns out, they have made great progress over the three years you were slumbering. . . .
>
> Which of the following statements describe this new and improved Social Development Family, as it appears to you in 2002? Sort these statements from "least describes" to "best describes."

Elements

The most challenging part of designing a Q-sort is not in defining the umbrella question, but rather in selecting the *elements* that the question asks participants to sort. The best thing to keep in mind is that while no list of statements is perfect, no list has to be. Since what is really of interest are the tacit, underlying criteria and perceptions people use to consider an issue, the elements themselves are of secondary importance. Their job is to be broad enough (and clear enough) to set these tacit criteria and perceptions to work, and to give the researcher insights about them once the sort is complete.

Elements can be created in a variety of ways. A researcher can create all the elements "from scratch" if he or she desires. Literature reviews may be of assistance, or an external list may be used. Another approach is to involve participants in the element-generation stage. In advance, a researcher can ask some or all participants to submit a few elements for the sort. If an explicit invitation for submission is not possible or desirable, a researcher can still draw on elements generated by the stakeholder community by pulling comments or phrases from sources that stakeholders have previously produced (flyers, papers, books, headlines). Even quotes from interviews can make good elements. Keep in mind that elements do not need to be lengthy sentences. Pictures or images, simple phrases, or single words can work. This may be especially helpful with less literate populations. Brown's bibliography, mentioned earlier, is a good place to review different approaches to element design.[4]

If a researcher has a few ideas in mind about dimensions that may be critical, he or she can "seed" the elements with items that represent different levels of the dimension (Brown 1993).

There is no clear rule of thumb for the number of elements that should be included, but sorts with as few as 20 or as many as 60 items are possible. One simply adjusts the structure of the answer curve accordingly.

There are a few rules of thumb you can use to craft a good set of elements. First, try to choose elements that mean different things. Items that are nearly repeats of one another are confusing to participants, as are pairs of items that are the exact inverse of each other (for example, restaurant takes credit cards; restaurant does not accept credit cards).

Next, try to avoid extreme elements, so good (or so repulsive) that everyone you sample could be expected to either agree (or disagree) with, to the exclusion of prioritizing other items. Instead, elements should be plausible competitors with one another, such that some participants may be attracted to them and others disinclined to choose them.

Finally, try to keep the elements parallel in style. Pick all sentences or all phrases. Avoid

double negatives. Be clear. However you construct your list of elements, you may want to pre-test the items with a couple participants, for clarity and general comparability.

In the case of the SDV Q-sort, the Monitor consultants initially developed the elements, drawing on materials written by SDV. Then, a team composed of SDV managers and the Monitor consultants reviewed the items, suggested revisions for clarity, and debated additions and subtractions until a list that was satisfactory to all was developed. Although no pre-determined dimensions were specifically "seeded" into the sort, a list of sub-issues that the group felt SDV was facing was created, and items were written to touch on them. See appendix 1 for a list of the items selected.

Administration

With the elements prepared and tested, and the umbrella question crafted, the administration becomes a matter of preparing the instrument and instructing the participants.

Preparing the Instrument

The instrument has four components: (1) *chips,* (2) *guide bar,* (3) *answer sheet,* and (4) *instructions.* Since the sort should be tactile and iterative, it is difficult to avoid using (and creating!) little chips. There is PC software that can represent the sort on a screen using an Internet browser,[5] and it is possible to administer extremely brief sorts using a conventional survey instrument. However, basically, nothing so far beats the cards. The rest of the chapter assumes a "conventional" sorting technique.

The *chips* are what participants actually sort. Write or type one element on each chip, and number the chips from 1 to X. Make the chips as small as possible while keeping the font legible and try to keep all the chips the same size. Approximately 30 brief statements will fit on an 8-1/2 x 11-inch page if the margins are set as wide as possible.[6] Print them onto card stock or heavy paper, and use a paper cutter to separate the elements from each other. Bind them together with an elastic band or put them in an envelope. Double-check to make sure that each set of chips is labeled consistently and contains exactly one of each element. Duplicates or missing items at this stage can ruin a sort.

The *guide strip* helps participants structure the sort according to the pattern determined in advance by the researcher. The guide strip should be wide enough to accommodate the chips underneath. You can print out two pages horizontally and tape them together to yield a strip about 18 inches wide and 3 inches high. The guide for the SDV Q-sort (22 elements) looked like the one in table 2.

The *answer sheet* can be a single page, with the umbrella question on the top and the guide strip (and answer spaces) underneath. It would be a blank version of table 1, with the question written at the top. Make sure the number of spaces matches the number and shape of the elements as presented in the header. If you have any other tracking questions (group affiliation, name, date administered, or any other survey questions), you can place them on the same page as the answer sheet. The sheet we used for the SDV sort is attached as appendix 2.

Finally, it is helpful to include an *instruction sheet* for participants. Although spoken instructions are best, the backup is useful, especially as the number of simultaneous participants increases. The instructions we used for the SDV sort are attached as appendix 3.

Enclose the guide strip, the chips, the answer sheet, and the instructions in a folder, and you

Table 2. A Guide Strip

Guide to sorting statements						
Least important -3	-2	-1	0	1	2	Most important 3
2 statements	3 statements	4 statements	4 statements	4 statements	3 statements	2 statements

are ready to turn to the participants and the setting.

Preparing the Setting and Instructing Participants

You will need to consider the setting and the instructions you will deliver to participants.

The Q-sort can be administered in group or solo settings. In either case, participants need a wide, flat workspace large enough to lay out the guide strip, sort the statements, visually review the entire sort (to make adjustments), and then record their answers without disturbing the sort. Sorts can be handled fairly quickly; allot 20 or 25 minutes for a sort of 30 statements.

The instructions should make clear to participants the purpose of each of the four components in the pack. If in a group administration, verbal instructions should be given immediately upon—if not before—distribution of the pack, since curious participants will take things out of the pack and start working with them as soon as they can. The seven basic steps that participants should be instructed to follow are:

1. *Count the chips.* Make sure the proper number of chips are there.
2. *Review the question* (the instructions or context for the sort). Make it understood that each chip represents one element that can be interpreted as "more" or "less" important to the question at hand.
3. *Review the guide. S*ee the shape into which the elements must be sorted. There is no impact on the order within columns, only between them.
4. *With the question in mind, sort the items in a multi-stage process*. Most people cannot assign a number to each statement on the first pass. It is much easier to do a rough sort first, categorizing items into three piles: less important, neutral, and more important. It does not matter how many statements go into each pile at first. If the participant then works to prioritize statements within each pile in turn, the sort will begin to emerge. Participants should be encouraged to adjust statements on the fly, as many times as they

like, until they arrive at a first pass on the sort, with the right number of statements arranged under each column of the guide strip.
5. *Take a step back, review the sort, and make changes*. Again, the process is intended to be iterative (as participants consider the attractiveness of each element, relative to the other elements). Sometimes this second look will yield changes.
6. *Record the sort.* Participants can record their sorts by writing the number corresponding to each element in the space on the answer sheet that represents its place on the sort on the table. The answer sheet is a "snapshot" of the sort on the table.
7. *Check the recorded sort.* Have participants double-check their own entry for double-counts or blank spaces. They will not catch every mistake but will catch a few.

Be available for help as participants complete the sort.

As you collect the responses, try to run your eyes over each sort to check for mistakes and blanks. Mistakes can be hard to remedy later, and if one item is wrong, the participant's whole sort is invalid. Once the sheets are collected, you can take back the chips and header. Carefully check the number of chips before reusing them.

Data Analysis

Analysis can take as little as a couple of hours or considerably longer, depending on the number of iterations you wish to pursue and the degree of depth to which you want to work with the data. A normal statistical package with factor analysis capability is sufficient to perform the analysis, but a specialty program such as PQMethod (mentioned earlier) makes things much easier.

This section will present the minimal number of steps necessary to yield a Q analysis. It will presume and require little statistical background and will be linked to the use of the free PC (DOS) program PQMethod. Researchers interested in a more in-depth treatment of the statistical underpinnings of Q, the various

options and nuances of the method, and the range of possibilities should examine McKeown and Thomas (1988), or Steven R. Brown's primer on Q-methodology (1993). The latter appears in *Operant Subjectivity*, a journal dedicated almost exclusively to Q-methodology. Finally, this summary assumes a Q targeted at multiple participants at a single administration. Slightly different methods would be used to look at a single participant's sorts under different umbrella questions.

Starting with the end in mind, a Q-sort creates three basic outputs for analysis and discussion:

1. The *distinct groups,* or common "perspectives" that appear in the sample. Using a form of factor analysis, the 10, 20, 30, or 50 participants who completed the sort are compressed into 3, 4, 5, or more subgroups, each reflecting a common pattern of responses. Each of these subgroups can be portrayed with a "snapshot," summarizing the average sort of the participants in that subgroup. It is useful to name these subgroups with an evocative summary title.

2. *Contention elements* are elements that distinguish one subgroup from another. The farther apart the rankings of any two subgroups on an item, the more contentious that element is likely to be. Identification of these items can prompt excellent discussions in participatory sessions.

3. *Consensus elements* are elements generally agreed on by members of most groups (everyone agrees, or everyone disagrees). If the discussion of the contention items gets out of hand, it is handy to have the consensus items in your back pocket.

To generate these three outputs, there are six steps to be performed using PQMethod:

1. Load and launch PQMethod.
2. Enter the statements and data.
3. Extract initial factors.
4. Rotate the factors.
5. Group participants.
6. Generate the data run(s).

1. Launch PQMethod. It is free. Download it at the Q-method page (mentioned earlier). It is available for PC (DOS), Mac, or Unix. These instructions refer to PQMethod for PC (DOS). Make sure to get the manual, as it will help with the downloading and installation. This chapter is not a tutorial on DOS, nor is it a substitute for the PQMethod manual. What it will do is guide you through the steps with an eye toward getting to the three key outputs as easily as possible.

2. Enter the statements and data. Once PQMethod is running, you will be asked to name the project for DOS. This is straightforward, as long as you do not mind saving to the "projects" folder within the PQMethod folder. Otherwise, you will have to specify a path name. Keep the study name to 8 characters. I chose SDVV2000 for this project. You then see the main dialogue screen for PQMethod (table 3)—the one you will return to between each operation.

Once you have named the project, the first stage in the PQMethod analysis is to enter the statements routine: STATES. These correspond to the elements you have used for the sort. You can type them by hand into the DOS editor, specify a different text editor open automatically, or tell the software to find a file. The third option may be the easiest: prepare the file in

Table 3. Main Dialogue Screen for PQMethod

Current Project is ... c:/pqmethod/projects/sdv2000. Choose the number of the routine you want to run and enter it.

1 – STATES - Enter (or edit) the file of statements.
2 – QENTER - Enter Q-sorts (new or continued).
3 – QCENT - Perform a Centroid factor analysis.
4 – QPCA - Perform a Principal Components factor analysis.
5 – QROTATE - Perform a manual rotation of the factors.
6 – QVARIMAX - Perform a varimax rotation of the factors.
7 – QANALYZE - Perform the final Q analysis of the rotated factors.
8 – View project files sdv2000.*
X – Exit from PQMethod.

advance with Microsoft Word or Notepad and save it as a text-only file (.txt). Then, rename it with the correct extension for PQMethod, replacing .txt with .sta. As you enter statements, keep two things in mind: (1) limit your statements to 60 characters each, and (2) make sure you enter the statements in the correct order, since the program assigns numbers to each statement automatically. Separate statements with a simple hard return (line break).

Now you are ready to enter the data, using routine #2: QENTER. To build the data matrix, PQMethod will ask for four pieces of data:

1. A title for the project
2. The number of statements that were sorted
3. The leftmost and rightmost column values in the sort (for example, -3 and 3)
4. The number of statements that appear under each column (for example, 2, 3, 4, 4, 4, 3, 2).

Once the software has the shape and size of the curve, its process for guiding you through data entry is fairly painless. Starting with the identification number, PQMethod will ask you for the numbers for each statement that appears under each column. If you mis-type, or if your data are flawed, the system will not let you continue. You can also re-visit or edit sorts you have previously entered. The system is not perfect—there are many hard returns between you and a completed data matrix. However, the system is better than alternatives in SPSS or Excel because it allows you to enter the data in the shape in which they were gathered. If you gathered other information while doing the sort (gender, age, attitude data), this system is not as effective, but you can handle those variables in Excel or any statistical package once the Q-sort is complete.

3. Extract the initial factors. At the core of a Q-sort is set of three procedures that look very much like a factor analysis (Kim and Mueller 1978):

• Correlations between observations (participants' sorts) are derived.
• Initial factors are extracted.

• These factors are rotated to arrive at clearer representations of distinct patterns of observations.

There are slight differences between a factor analysis (in which variables that exhibit similar patterns are grouped) and Q-analysis (in which people who exhibit similar patterns of responses are grouped), but for details on this topic, please visit two texts that handle the seemingly bottomless nuances of Q-statistics better than this author could: McKeown and Thomas (1988) or (Brown 1993).

The first two phases of this triad of operations are completely automatic for beginners. Running routine #4 QPCA will derive the correlations and then perform an initial factor analysis using the principal components method. This will give you the raw building blocks for the evaluation step (rotation) that will follow. *Skip routine #3 QCENT*. QCENT is an alternative method of extracting initial factor, which would run a factor analysis using centroid extraction. The difference between the two approaches is negligible for most Q-sorts (McKeown and Thomas 1988).

The main benefit of QPCA over QCENT is that QPCA gives you eigenvalues for each factor, which can help you decide how many groups you eventually want to build. Eigenvalues are a measure of the relative contribution of a factor to the explanation of the total variance in the correlation matrix. Factors with an eigenvalue greater than one explain more variance than a single variable would. Thus, the maximum number of factors you would want to carry into the rotation step is equal to the number of initial factors with eigenvalues greater than one. Table 4 displays the eigenvalues extracted by QPCA on the SDV data. In this case, the maximum number of factors to carry into the next step would be 5 (although #5 is just barely above one).

4. Rotate the factors. This is the first stage in which there is real flexibility in the process for beginners, since the rotation stage allows you to specify the number of factors (subgroups of participants) you want to carry forward into the analysis. As mentioned above, the QPCA

procedure yields eigenvalues for each initial factor extracted. Using this information (displayed in table 4), you should have identified the *maximum* number of factors you will rotate (based on all factors with an eigenvalue greater than one). However, you should not be guided by the eigenvalues alone. It may be the case that choosing fewer factors will yield sufficient dispersion to make the story clear. The more factors you have, the more fragmented the data will become. You will have to judge for yourself whether a 3-, 4-, or 5- (or more) factor solution is most compelling. Thus, you will probably want to run the analysis more than once, starting with the smallest number factors you think you will accept, and ending at the maximum number you think you can rotate, based on the eigenvalues.

PQMethod offers two procedures for rotating factors. Routine #5, QROTATE, offers functionality to rotate factors by hand and by sight. This is a more advanced procedure, which will not be covered in this chapter. *Skip routine #5: QROTATE.*

The second procedure for rotating factors is #6: QVARIMAX. Commonly applied throughout the social sciences, and likely to yield an acceptable result, this varimax procedure is the one you should use. Varimax rotation clarifies the structure of your chosen factors by maxi-

mizing the variance between each of the factors. (It adjusts the weights given to each element on each factor.) Launch the procedure and specify the number of factors you want to rotate. The DOS version of PQMethod will ask you whether you want to use the newer graphical procedure. You should opt to do so.

Table 5 illustrates roughly what the output from the rotated factor solution will show.[7] Each factor is a column; each participant is a row. The numeric value in each cell indicates the strength of the participant's "loading" onto the factor. Loads can be as high as 1 (indicating perfect agreement), or as low as –1. In the case of negative values, participants can be said to *disagree* with the factor. So, in the case of the SDV data, participant #3 (R3) loaded highly (0.8) onto factor 1, and relatively strongly (-0.4) onto factor 3. The more a participant loads cleanly (disproportionately) onto a single factor, the better that factor represents that participant's sort—and subjective perspective on the issue at hand.

5. Group participants. The final aspect of the rotation sequence is to assign participants to factors. This is the step at which you are creating the subgroups and establishing the foundation for the calculation of the distinct "voices" present among your participants. The software

Table 4. Output from PQMethod on SDV Data: Results of QPCA Procedure

	Eigenvalues	As percentages	Cumulative percentages
1	5.4953	32.3251	32.3251
2	2.1647	12.7337	45.0588
3	2.0397	11.9982	57.0570
4	1.6746	9.8508	66.9078
5	1.0443	6.1427	73.0505
6	0.9452	5.5603	78.6108
7	0.8041	4.7302	83.3410
8	0.6988	4.1108	87.4517
9	0.5912	3.4777	90.9294
10	0.4695	2.7620	93.6914
11	0.3299	1.9407	95.6321
12	0.2774	1.6316	97.2637
13	0.2509	1.4758	98.7395
14	0.0889	0.5227	99.2622
15	0.0605	0.3561	99.6183
16	0.0380	0.2236	99.8419
17	0.0269	0.1581	100.0000

Table 5.   Example of Rotated Factor Solution: SDV Data

	Fac1	Fac2	Fac3	Fac4
R1	0.38	0.10	0.80	0.74
R2	0.14	0.76	-0.14	0.30
R3	0.80	0.32	-0.40	-0.10
R4	-0.15	0.78	0.27	0.14
R5	-0.10	0.21	0.88	-0.50
R6	0.80	0.42	0.57	0.22
R7	0.68	0.20	0.32	0.17
R8	0.73	-0.20	0.70	0.45
R9	0.29	-0.11	0.64	0.13
R10	0.29	0.50	0.16	0.62
R11	0.87	0.30	0.16	0.16
R12	0.13	0.30	0.42	0.50
R13	0.30	-0.19	0.71	0.26
R14	0.55	-0.60	0.20	0.58
R15	-0.42	-0.67	0.60	0.49
R16	-0.10	0.70	0.20	0.80
R17	0.12	0.17	-0.30	0.66

can begin this process for you by performing an "automatic pre-flag." All it will do is mark the cases that load cleanly onto a factor. After that, you may want to manually adjust the flags to compensate for close calls or other nuances in your data. Table 6 shows the results of the automatic pre-flagging on the left for the SDV data, and the manual edits I made on the right.

In this case, the only manual change I made to the automatic pre-flagging was to switch the affiliation of participant R15 from factor 2 to factor 4. Negative loads, although clear in theory, are difficult for participants to understand. Imagine this conversation: "Well . . . Bill, Bob, and Mary belong to subgroup 2. But as for Joe, Joe's defining characteristic is how little he agrees with Bob, Bill, and Mary." The 0.49 load of R15 on group 4 is not great, but not bad either: the minimum threshold for loading on a group is just about 0.50. The first tip, therefore, in terms of how to manually adjust automatic pre-flags is to avoid assignment to groups based on negative loads.

The second tip is to avoid or ignore people who do not load cleanly onto a factor. For example, in the SDV data, R14 sits at 0.55 on factor 1, but also at 0.58 at factor 4. I chose to not assign that participant to a group. Again, the more factors you run, the less likely it is that you will encounter double- or triple-loading and the cleaner your factors are likely

Table 6. Automatic and Manual Flags of SDV Factor Data

**Assigning participants to factors: "Flagging"
assignments to subgroups marked with ***

	A. Automatic				B. With manual adjustments (changes from automatic are shaded)			
	Fac1	Fac2	Fac3	Fac4	Fac1	Fac2	Fac3	Fac4
R1	0.38	0.10	0.80	0.74*	0.38	0.10	0.80	0.74*
R2	0.14	0.76*	-0.14	0.30	0.14	0.76*	-0.14	0.30
R3	0.80*	0.32	-0.40	-0.10	0.80*	0.32	-0.40	-0.10
R4	-0.15	0.78*	0.27	0.14	-0.15	0.78*	0.27	0.14
R5	-0.10	0.21	0.88*	-0.50	-0.10	0.21	0.88*	-0.50
R6	0.80	0.42	0.57*	0.22	0.80	0.42	0.57*	0.22
R7	0.68*	0.20	0.32	0.17	0.68*	0.20	0.32	0.17
R8	0.73*	-0.20	0.70	0.45	0.73*	-0.20	0.70	0.45
R9	0.29	-0.11	0.64*	0.13	0.29	-0.11	0.64*	0.13
R10	0.29	0.50	0.16	0.62*	0.29	0.50	0.16	0.62*
R11	0.87*	0.30	0.16	0.16	0.87*	0.30	0.16	0.16
R12	0.13	0.30	0.42	0.50*	0.13	0.30	0.42	0.50*
R13	0.30	-0.19	0.71*	0.26	0.30	-0.19	0.71*	0.26
R14	0.55	-0.60	0.20	0.58	0.55	-0.60	0.20	0.58
R15	-0.42	-0.67*	0.60	0.49	-0.42	-0.67	0.60	0.49*
R16	-0.10	0.70	0.20	0.80*	-0.10	0.70	0.20	0.80*
R17	0.12	0.17	-0.30	0.66*	0.12	0.17	-0.30	0.66*

Results: 4 participants in group 1, 2 in group 2, 4 in group 3, and 6 in group 4. One participant (R14) is unassigned.

to be. However, you will also have more subgroups to discuss at the end, and fewer consensus statements left in the data.

6. Generate the data run(s). Once you have assigned participants to subgroups, you are ready to submit the prepared data back to the PQMethod software for analysis. Select routine #7, QANALYSE, and let it write the results to a list file. You can print it out or save it in Microsoft Word, according to what you need. At this stage, it is easy to run two or three different analyses at once, with different numbers of factors and assignments to groups, and then print them all to compare side by side. At that point, you can close PQMethod.

Interpretation

The PQMethod file you generate for each run will contain a number of items and is likely to be over 20 pages long. There is more detail than you need as a beginner, but it is quite convenient to have everything generated at once and in one place. Items generated include the following (items needed for a basic evaluation of the results are marked with an asterisk):

- *Correlation matrix.* This shows the correlation between individual pairs of Q-sorts.
- *Unrotated factor matrix.* This will contain eight factors if you choose QPCA, plus the accompanying eigenvalues and the percentage of variance each factor represents.
- *Rotated factor matrix*, with the number of requested factors, the item loadings, and percent of variance explained by each factor. (The format looks similar to table 5 above. Unlike the display for the unrotated matrix, this table will contain information only for the factors you selected (in this case, four)).
- *Free distribution data results*. The participant-by-participant summaries of the mean and standard deviations of their sort should be the same for each case and are therefore of little use.
- *Rank statement totals* for each factor. The totals tell you how each factor (subgroup) ranked each statement. It can be useful, but the same information will be available in clearer formats later in the analysis packet.

- *Correlations between each factor*. This demonstrates how similar each factor (subgroup) is to each other factor.
- *Normalized factor scores* for each factor (subgroup). These tables go factor by factor, listing all the statements in descending order of ranked importance. You will use these pages to determine the overall character of a subgroup's perspective. The Z-scores show how far from the overall mean (measured in standard deviations) each item is for the group.
- *Array of differences between factors*. This block of tables allows for per-item comparisons between each factor.
- *Factor Q-Sort values* for each statement. These two snapshot pages give you the "voice"—average sort—for each factor group. For easy interpretation, the Z-scores are translated back into the original scale used in the sort. These are sorted in order of statement number, then by degree of agreement between the groups.
- *Factor characteristics*. This reports the number of defining variables (statistically distinct from other groups) and other indexes of how well the factor holds together.
- *Distinguishing characteristics* for each factor. These tables highlight contention statements that subgroup members have ranked significantly differently from other subgroups (higher or lower than overall average). Use these tables to help define the key differences among subgroups.
- *Consensus statements.* These items do not distinguish between any pair of subgroups.

The first key output from the analysis—profiles of the perspective of each distinct subgroup—is derived using three sources: the factor Q-sort values, the normalized factor scores, and the distinguishing characteristics of each factor. We will visit the contribution of each in turn.

The *Factor Q-Sort Values* for each statement provide a good snapshot of how each group ranked the items. Table 7 contains the example from the SDV data. The values in the columns represent the "archetypal" pattern sort of the participants assigned (flagged) to that factor.

Table 7.   Factor Q-Sort Values for SDV

Num	Element	Fac1 n=4	Fac2 n=2	Fac3 n=4	Fac4 N=6
1	SDV is composed of people with a mix of educational and professional backgrounds with management and client-interface skills that match their technical proficiencies.	2	0	-1	-2
2	SDV is a leading resource within the Bank for easily applicable solutions to social issues facing country teams, such as participatory methods or local capacity building.	3	1	2	3
3	SDV manages a network of external links to NGOs both in developing and developing nations, which enables SDV to play a role in coordinating actions among multiple actors in the development arena.	0	2	-2	-2
4	SDV delivers stand-alone projects to country teams, complete with staff or connections to local staff.	-2	0	-1	-3
5	SDV is a provider of region-level solutions to problems; with a staff and budget that resides primarily with the regions.	0	1	2	-1
6	SDV is involved, through an allocated staff member, on nearly every relevant Bank project.	-3	1	-1	1
7	SDV has its own products that can be offered directly to clients in countries.	-2	2	0	-2
8	SDV is respected and in demand within the Bank as a source for efficient and fair compliance reviews.	-1	-3	-3	0
9	SDV serves as the primary advocate within the Bank for the needs of countries' most vulnerable populations.	-2	-1	1	2
10	SDV affects change in the Bank by persuasion; its voice and recommendations are respected by Bank audiences.	-1	-1	3	1
11	SDV is the primary locus of policy formation for certain crosscutting social issues.	3	3	3	2
12	SDV is able to quickly anticipate and adjust its offerings based on the needs of client teams.	1	-2	0	-1
13	SDV is a leading resource within the Bank for knowledge on a broad range of crosscutting social issues.	2	2	0	2
14	SDV serves as a center for training and development of other Bank staff on social issues.	2	-3	-2	0
15	SDV challenges and pushes the Bank to maintain a focus on programs that reduce poverty.	-1	1	0	3
16	SDV is a driver of quality assurance for Bank projects.	0	0	-2	-1
17	SDV is a source of world-class research in issues related to social development.	-3	-1	1	-3
18	SDV attracts and retains the most skilled social scientists working in development.	1	-1	1	-1
19	SDV is a constant innovator; developing a series of new products and services to offer within the Bank.	1	-3	2	0
20	SDV serves as a center for training and development of non-Bank staff (government, other NGOs) on social issues.	0	-2	-3	0
21	SDV works on the front lines, allocating staff to designing and implementing projects on the ground in developing countries.	-1	3	1	1
22	SDV serves as a clearinghouse for a core set of assessment tools that are used by the majority of Bank project teams.	1	0	-1	1

From this Q-sort values page alone, you could create "snapshots" of each group's perspective on the issue. However, it is difficult to get a sense of the relative priorities of any one group without sorting for that group. So, returning to output 7 (*normalized factor scores*) is helpful. Table 8 contains the normalized factor scores for first subgroup in the SDV sort.

Now the profile is clear: items at the top of the table are ranked as more important by the group. Items at the bottom of the page are ranked as less important.

The final piece of the profiling sequence is to isolate the elements in the sort that are distinctive for each group. Output 11 (*distinguishing characteristics for each factor*) is helpful here.

Table 8.   Normalized Factor Scores for SDV Subgroup 1

Num	Statement	Z-score
2	SDV is a leading resource within the Bank for easily applicable solutions to social issues facing country teams, such as participatory methods or local capacity building.	1.812
11	SDV is the primary locus of policy formation for certain crosscutting social issues.	1.764
13	SDV is a leading resource within the Bank for knowledge on a broad range of crosscutting social issues.	1.223
1	SDV is composed of people with a mix of educational and professional backgrounds with management and client-interface skills that match their technical proficiencies.	0.871
14	SDV serves as a center for training and development of other Bank staff on social issues.	0.798
12	SDV is able to quickly anticipate and adjust its offerings based on the needs of client teams.	0.779
22	SDV serves as a clearinghouse for a core set of assessment tools that are used by the majority of Bank project teams.	0.707
19	SDV is a constant innovator; developing a series of new products and services to offer within the Bank.	0.588
18	SDV attracts and retains the most skilled social scientists working in development.	0.281
20	SDV serves as a center for training and development of non-Bank staff (government, other NGOs) on social issues.	0.209
5	SDV is a provider of region-level solutions to problems; with a staff and budget that resides primarily with the regions.	0.165
16	SDV is a driver of quality assurance for Bank projects.	-0.212
3	SDV manages a network of external links to NGOs both in developing and developing nations, which enables SDV to play a role in coordinating actions among multiple actors in the development arena.	-0.358
21	SDV works on the front lines, allocating staff to designing and implementing projects on the ground in developing countries.	-0.447
10	SDV affects change in the Bank by persuasion; its voice and recommendations are respected by Bank audiences.	-0.561
8	SDV is respected and in demand within the Bank as a source for efficient and fair compliance reviews.	-0.658
15	SDV challenges and pushes the Bank to maintain a focus on programs that reduce poverty.	-0.659
7	SDV has its own products that can be offered directly to clients in countries,	-0.872
9	SDV serves as the primary advocate within the Bank for the needs of countries' most vulnerable populations.	-0.965
4	SDV delivers stand-alone projects to country teams, complete with staff or connections to local staff.	-1.147
6	SDV is involved, through an allocated staff member, on nearly every relevant Bank project.	-1.504
17	SDV is a source of world-class research in issues related to social development.	-1.812

Table 9 illustrates the distinguishing characteristics for subgroup 1 in the SDV data.

This table shows that the four participants in subgroup 1 rate item 1 (skill mix), item 14 (training for Bank staff) and item 12 (speed of adjustment) higher than the average of the other subgroups. They rate item 3 (NGO networks) and item 6 (involved on every project) lower than average.

To create the summary profile of a subgroup, combine the three outputs discussed above. Take the factor values for the subgroup from table 7, put them in the order of the factor-specific sort from table 8, and flag the

Table 9. Distinguishing Characteristics for SDV Subgroup 1

Num	Group 1 Statements significantly different than overall mean @ p<0.05 (bold @ <0.01) Statement	Factor 1 n=4 RNK	Z	Factor 2 n=2 RNK	Z	Factor 3 n=4 RNK	Z	Factor 4 n=6 RNK	Z
1	SDV is comprised of people with a mix of educational and professional backgrounds with management and client-interface skills that match their technical proficiencies.	2	0.87	0	0.00	-1	-0.46	-2	-0.74
14	SDV serves as a center for training and development of other Bank staff on social issues.	2	0.80	-3	-1.30	-2	-1.19	0	-0.08
12	SDV is able to quickly anticipate and adjust its offerings based on the needs of client teams.	1	0.71	-2	-1.27	0	-0.05	-1	-0.63
3	SDV manages a network of external links to NGOs both in developing and developing nations, which enables SDV to play a role in coordinating actions among multiple actors in the development arena.	0	-0.36	2	1.27	-2	-1.06	-2	-0.98
6	SDV is involved, through an allocated staff member, on nearly every relevant Bank project.	-3	-1.50	1	0.65	-1	-0.60	1	0.16

significant variables from table 9 to tell the story of the worldview of the four participants who you categorized into subgroup 1. Table 10 is an example of such a summary profile, again using subgroup 1 from the SDV data.

We're finally at the moment at which real interpretation can commence. Using this summary chart, a few patterns emerge:

- Like others in the sample, members of subgroup 1 want SDV to be a leading resource within the Bank for knowledge about and solutions to "social issues" and to be involved in policy formation. (The highest items are worth mentioning, even if they are not unique.)
- Subgroup 1 is particularly interested in developing a mixed skill-set (including management skills) and in supplying training on social issues to other Bank staff. (Note the defining high items, even if they are not top-ranked.)
- Subgroup 1 is relatively less interested than others in managing a network of NGOs and

does not feel the need to be involved via an allocated staff member on "nearly every" Bank project. (Mention the items the subgroup ranked as defining low.)
- Like many others, members of subgroup 1 see "world class research" and "stand-alone products" as less important. (Mention the subgroup's absolute lows, whether distinguishing or not.)

At this point, a researcher could show the data chart above, the bullet points, or some combination. If there were demographic clues to the composition of the group, there may be additional points of differentiation to discuss.

We often find that naming the group with a brief, evocative, sometimes colorful name can help anchor the group in audience's minds. On the other hand, it can be a great interactive exercise to have the participants name the group together. Often, they will have a person or an archetype in mind that helps this particular worldview come alive for them. It also

Table 10.   Summary of Factor 1 (n=4)

Num	Statement	Score	Note
2	SDV is a leading resource within the Bank for easily applicable solutions to social issues facing country teams, such as participatory methods or local capacity building.	3	
11	SDV is the primary locus of policy formation for certain crosscutting social issues.	3	
13	SDV is a leading resource within the Bank for knowledge on a broad range of crosscutting social issues.	2	
1	SDV is composed of people with a mix of educational and professional backgrounds with management and client-interface skills that match their technical proficiencies.	2	High
14	SDV serves as a center for training and development of other Bank staff on social issues.	2	High
12	SDV is able to quickly anticipate and adjust its offerings based on the needs of client teams.	1	
22	SDV serves as a clearinghouse for a core set of assessment tools that are used by the majority of Bank project teams.	1	High
19	SDV is a constant innovator; developing a series of new products and services to offer within the Bank.	1	
18	SDV attracts and retains the most skilled social scientists working in development.	1	
20	SDV serves as a center for training and development of non-Bank staff (government, other NGOs) on social issues.	0	
5	SDV is a provider of region-level solutions to problems; with a staff and budget that resides primarily with the regions.	0	
16	SDV is a driver of quality assurance for Bank projects.	0	
3	SDV manages a network of external links to NGOs both in developing and developing nations, which enables SDV to play a role in coordinating actions among multiple actors in the development arena.	0	Low
21	SDV works on the front lines, allocating staff to designing and implementing projects on the ground in developing countries.	-1	
10	SDV affects change in the Bank by persuasion; its voice and recommendations are respected by Bank audiences.	-1	
8	SDV is respected and in demand within the Bank as a source for efficient and fair compliance reviews.	-1	
15	SDV challenges and pushes the Bank to maintain a focus on programs that reduce poverty.	-1	
7	SDV has its own products that can be offered directly to clients in countries.	-2	
9	SDV serves as the primary advocate within the Bank for the needs of countries' most vulnerable populations.	-2	
4	SDV delivers stand-alone projects to country teams, complete with staff or connections to local staff.	-2	
6	SDV is involved, through an allocated staff member, on nearly every relevant Bank project.	-3	Low
17	SDV is a source of world-class research in issues related to social development.	-3	

begins the process of having the participants take the perspective of another, as they try to ascertain what the members of subgroup 1 were thinking as they prioritized the items. This is a key benefit of the playback/participatory process.

Whether naming is done by the researcher ahead of time, or in collaboration with partici-pants, the last clue that makes helps in the naming and interpretation of this profile is other profiles. Seeing how subgroup 1 looks different from subgroups 2, 3, and 4 can make interpreting subgroup 1 a little easier. Tables 11-13 show the profiles for the other three subgroups, along with some explanatory bullets.

Table 11. Summary of Subgroup 2 (n=2)

Num	Statement	Score	Note
11	SDV is the primary locus of policy formation for certain crosscutting social issues.	3	
21	SDV works on the front lines, allocating staff to designing and implementing projects on the ground in developing countries.	3	High
13	SDV is a leading resource within the Bank for knowledge on a broad range of crosscutting social issues.	2	
3	SDV manages a network of external links to NGOs both in developing and developing nations, which enables SDV to play a role in coordinating actions among multiple actors in the development arena.	2	High
7	SDV has its own products that can be offered directly to clients in countries.	2	High
6	SDV is involved, through an allocated staff member, on nearly every relevant Bank project.	1	
15	SDV challenges and pushes the Bank to maintain a focus on programs that reduce poverty.	1	
2	SDV is a leading resource within the Bank for easily applicable solutions to social issues facing country teams, such as participatory methods or local capacity building.	1	
5	SDV is a provider of region-level solutions to problems; with a staff and budget that resides primarily with the regions.	1	
16	SDV is a driver of quality assurance for Bank projects.	0	
1	SDV is composed of people with a mix of educational and professional backgrounds with management and client-interface skills that match their technical proficiencies.	0	
4	SDV delivers stand-alone projects to country teams, complete with staff or connections to local staff.	0	
22	SDV serves as a clearinghouse for a core set of assessment tools that are used by the majority of Bank project teams.	0	
9	SDV serves as the primary advocate within the Bank for the needs of countries' most vulnerable populations.	-1	
10	SDV affects change in the Bank by persuasion; its voice and recommendations are respected by Bank audiences.	-1	
18	SDV attracts and retains the most skilled social scientists working in development.	-1	
17	SDV is a source of world-class research in issues related to social development.	-1	
20	SDV serves as a center for training and development of non-Bank staff (government, other NGOs) on social issues.	-2	Low
12	SDV is able to quickly anticipate and adjust its offerings based on the needs of client teams.	-2	
14	SDV serves as a center for training and development of other Bank staff on social issues.	-3	
8	SDV is respected and in demand within the Bank as a source for efficient and fair compliance reviews.	-3	
19	SDV is a constant innovator; developing a series of new products and services to offer within the Bank.	-3	Low

- Like others in the sample, the two members of subgroup 2 want SDV to be a leading resource within the Bank for knowledge about (but not necessarily solutions to) "social issues" and to be involved in policy formation.
- Subgroup 2 is particularly interested in going to the front lines and in offering its products directly to clients in countries.
- Subgroup 2 is relatively less interested in training non-Bank staff. Most interestingly, they feel strongly that "constant innovation" may be less important than other goals.
- Like some others, subgroup 2 is not as concerned with training Bank staff or with SDV's role in compliance reviews within the Bank.

Table 12.   Summary of Subgroup 3 (n=4)

Num	Statement	Score	Note
11	SDV is the primary locus of policy formation for certain crosscutting social issues.	3	
10	SDV affects change in the Bank by persuasion; its voice and recommendations are respected by Bank audiences.	3	High
5	SDV is a provider of region-level solutions to problems; with a staff and budget that resides primarily with the regions.	2	High
2	SDV is a leading resource within the Bank for easily applicable solutions to social issues facing country teams, such as participatory methods or local capacity building.	2	
19	SDV is a constant innovator; developing a series of new products and services to offer within the Bank.	2	
17	SDV is a source of world-class research in issues related to social development.	1	High
18	SDV attracts and retains the most skilled social scientists working in development.	1	
21	SDV works on the front lines, allocating staff to designing and implementing projects on the ground in developing countries.	1	
9	SDV serves as the primary advocate within the Bank for the needs of countries' most vulnerable populations.	1	
7	SDV has its own products that can be offered directly to clients in countries.	0	Low
12	SDV is able to quickly anticipate and adjust its offerings based on the needs of client teams.	0	
15	SDV challenges and pushes the Bank to maintain a focus on programs that reduce poverty.	0	
13	SDV is a leading resource within the Bank for knowledge on a broad range of crosscutting social issues.	0	Low
4	SDV delivers stand-alone projects to country teams, complete with staff or connections to local staff.	-1	
1	SDV is composed of people with a mix of educational and professional backgrounds with management and client-interface skills that match their technical proficiencies.	-1	
22	SDV serves as a clearinghouse for a core set of assessment tools that are used by the majority of Bank project teams.	-1	
6	SDV is involved, through an allocated staff member, on nearly every relevant Bank project.	-1	Low
16	SDV is a driver of quality assurance for Bank projects.	-2	
3	SDV manages a network of external links to NGOs both in developing and developing nations, which enables SDV to play a role in coordinating actions among multiple actors in the development arena.	-2	
14	SDV serves as a center for training and development of other Bank staff on social issues.	-2	
8	SDV is respected and in demand within the Bank as a source for efficient and fair compliance reviews.	-3	
20	SDV serves as a center for training and development of non-Bank staff (government, other NGOs) on social issues.	-3	Low

- Like others in the sample, the four members of subgroup 3 want SDV to be a leading resource within the Bank for solutions to (but not necessarily knowledge about) "social issues" and to be involved in policy formation.
- Subgroup 3 is particularly interested in affecting change in the Bank through persuasion and providing solutions at the regional level. They are also relatively more interested in SDV's role in producing world-class research.
- Subgroup 3 is least interested in training non-Bank staff. They are also less interested in getting involved on all Bank projects and in having stand-alone projects. Finally, they

Table 13. Summary of Subgroup 4 (n=6)

Num	Statement	Score	Note
15	SDV challenges and pushes the Bank to maintain a focus on programs that reduce poverty.	3	High
2	SDV is a leading resource within the Bank for easily applicable solutions to social issues facing country teams, such as participatory methods or local capacity building.	3	
9	SDV serves as the primary advocate within the Bank for the needs of countries' most vulnerable populations.	2	High
11	SDV is the primary locus of policy formation for certain crosscutting social issues.	2	
13	SDV is a leading resource within the Bank for knowledge on a broad range of crosscutting social issues.	2	
10	SDV affects change in the Bank by persuasion; its voice and recommendations are respected by Bank audiences.	1	High
22	SDV serves as a clearinghouse for a core set of assessment tools that are used by the majority of Bank project teams.	1	
21	SDV works on the front lines, allocating staff to designing and implementing projects on the ground in developing countries.	1	
6	SDV is involved, through an allocated staff member, on nearly every relevant Bank project.	1	
14	SDV serves as a center for training and development of other Bank staff on social issues.	0	High
20	SDV serves as a center for training and development of non-Bank staff (government, other NGOs) on social issues.	0	
8	SDV is respected and in demand within the Bank as a source for efficient and fair compliance reviews.	0	
19	SDV is a constant innovator; developing a series of new products and services to offer within the Bank.	0	Low
18	SDV attracts and retains the most skilled social scientists working in development.	-1	
16	SDV is a driver of quality assurance for Bank projects.	-1	
5	SDV is a provider of region-level solutions to problems; with a staff and budget that resides primarily with the regions.	-1	Low
12	SDV is able to quickly anticipate and adjust its offerings based on the needs of client teams.	-1	
1	SDV is composed of people with a mix of educational and professional backgrounds with management and client-interface skills that match their technical proficiencies.	-2	
3	SDV manages a network of external links to NGOs both in developing and developing nations, which enables SDV to play a role in coordinating actions among multiple actors in the development arena.	-2	
7	SDV has its own products that can be offered directly to clients in countries.	-2	
4	SDV delivers stand-alone projects to country teams, complete with staff or connections to local staff.	-3	
17	SDV is a source of world-class research in issues related to social development.	-3	

are less interested in being a source for crosscutting knowledge for the Bank of social issues.

- Like some others in the sample, members of subgroup 3 are not as concerned with SDV's role in compliance reviews within the Bank and in training Bank staff.
- Like others in the sample, the six members of subgroup 4 want SDV to be a leading resource within the Bank for solutions to (but not necessarily knowledge about) "social issues" and to be involved in policy formation.
- Subgroup 4 is particularly interested in challenging the Bank to retain its focus on poverty and to serve as the primary

advocate within the Bank for the needs of countries' most vulnerable populations. It also rates "affecting the Bank by persuasion" higher than others in the sample.

- Subgroup 4 is less interested in continually innovating and getting involved in all Bank projects, and in providing solutions at the region level.
- Like some others in the sample, members of subgroup 4 are not as concerned with SDV delivering stand-alone projects, and in SDV's being a source for world-class research.

Based on these patterns, summarized below in table 14, the SDV team and the Monitor consultants arrived at the following labels—representing four distinct visions for SDV (in 2002, after a long slumber…). Clearly, in a small group of 17 managers, who work closely (and well) together, we were able to

uncover different perspectives concerning SDV's future. These data became one of the key inputs to the change process during the five-day offsite.

At times, you may want to downplay the exact characteristics of groups, and focus instead on individual items. Contention and consensus items are easy to list and discuss. Table 15 shows the items we found in the case of the SDV group.

Looking at the sorts on a per-item basis yields a slightly different view. Three items were consensus high. SDV can most likely agree that it should remain (or become) a locus for policy formation on certain social issues and should be a source for knowledge and solutions about social issues. This approach identifies actionable consensus items.

In terms of contention items, there were lots of items with a reasonable gap (4 of 6 possible

Table 14.   Summary of Subgroups Found in the SDV Q-Sort

Group	More important	Less important	Name
1	• Source for knowledge and solutions for social issues • Policy formation • *Management skills* • *Training non-Bank staff*	• *Managing a network of NGOs* • *Involvement in many projects* • World-class research • Stand-alone products	Knowledge Shop
2	• Source for knowledge about social issues • Policy formation • *On the front lines* • *Offering products to clients*	• *Training non-Bank staff* • *"Constant innovation"* • Training Bank staff • Compliance reviews	In touch with the field
3	• Source for solutions to social issues • Policy formation • *Affecting change through persuasion* • *Providing solutions at the regional level* • *World-class research*	• *Training non-Bank staff* • *Involvement on many projects* • Stand-alone products • Source for knowledge about social issues • Compliance reviews the Bank • Training Bank staff	Country team influencers
4	• Source for solutions to social issues • Policy formation • *Challenging the Bank to retain its focus on poverty* • *Advocate for the needs of countries' most vulnerable populations* • *Affecting change through persuasion*	• *Constant innovation* • *Involvement on many projects* • *Providing solutions at the regional level* • Stand-alone products • World-class research	Advocates

Note: Items in italics are distinguishing statements for the subgroups.

Table 15. Summary of Contention and Consensus Statements

Num	Element	Fac1	Fac2	Fac3	Fac4	Gap	Note
11	SDV is the primary locus of policy formation for certain crosscutting social issues.	3	3	3	2	1	Consensus high
2	SDV is a leading resource within the Bank for easily applicable solutions to social issues facing country teams, such as participatory methods or local capacity building.	3	1	2	3	2	Consensus high
13	SDV is a leading resource within the Bank for knowledge on a broad range of crosscutting social issues.	2	2	0	2	2	Near consensus high
22	SDV serves as a clearinghouse for a core set of assessment tools that are used by the majority of Bank project teams.	1	0	-1	1	2	Neutral
18	SDV attracts and retains the most skilled social scientists working in development.	1	-1	1	-1	2	Neutral
16	SDV is a driver of quality assurance for Bank projects.	0	0	-2	-1	2	Near consensus neutral
20	SDV serves as a center for training and development of non-Bank staff (government, other NGOs) on social issues.	0	-2	-3	0	3	
8	SDV is respected and in demand within the Bank as a source for efficient and fair compliance reviews.	-1	-3	-3	0	3	
5	SDV is a provider of region-level solutions to problems; with a staff and budget that resides primarily with the regions.	0	1	2	-1	3	
12	SDV is able to quickly anticipate and adjust its offerings based on the needs of client teams.	1	-2	0	-1	3	
4	SDV delivers stand-alone projects to country teams, complete with staff or connections to local staff.	-2	0	-1	-3	3	
15	SDV challenges and pushes the Bank to maintain a focus on programs that reduce poverty.	-1	1	0	3	4	Contention item
9	SDV serves as the primary advocate within the Bank for the needs of countries' most vulnerable populations.	-2	-1	1	2	4	Contention item
10	SDV affects change in the Bank by persuasion; its voice and recommendations are respected by Bank audiences.	-1	-1	3	1	4	Contention item
21	SDV works on the front lines, allocating staff to designing and implementing projects on the ground in developing countries.	-1	3	1	1	4	Contention item
6	SDV is involved, through an allocated staff member, on nearly every relevant Bank project.	-3	1	-1	1	4	Contention item
1	SDV is composed of people with a mix of educational and professional backgrounds with management and client-interface skills that match their technical proficiencies.	2	0	-1	-2	4	Contention item
3	SDV manages a network of external links to NGOs both in developing and developing nations, which enables SDV to play a role in coordinating actions among multiple actors in the development arena.	0	2	-2	-2	4	Contention item
7	SDV has its own products that can be offered directly to clients in countries.	-2	2	0	-2	4	Contention item
17	SDV is a source of world-class research in issues related to social development.	-3	-1	1	-3	4	Contention item
14	SDV serves as a center for training and development of other Bank staff on social issues.	2	-3	-2	0	5	Contention item
19	SDV is a constant innovator; developing a series of new products and services to offer within the Bank.	1	-3	2	0	5	Contention item

points). The three items concerning advocacy and challenging the Bank fell in this category. Whether SDV should be an internal training center was of even greater contention, as was whether SDV needs to be constantly innovating (in terms of developing new products).

Conclusion

This chapter summarizes the results of one particular four-factor Q-sort solution using SDV's data. As with any Q-sort, there is a great deal to explore by varying the number of factors and the assignment of participants to groups. As a first step, however, this chapter should be a helpful guide to the process of conducting a Q-sort. It really is easy; the detailed statistics are not a barrier, thanks to PQMethod. Q-methodology is a very powerful tool, not only for analysis and research but also as a starting point for interventions and participatory exercises. It can bring into clarity a small number of dimensions to an issue that previously felt too messy or thorny to approach. Similarly, it can enable groups who seem divided into factions by political or social differences to see some commonalities of beliefs across factions, and some differences within them—a key step in beginning to reach group consensus.

Participants like the novel administration method, enjoy the apparent magic of the sorts, and are always interested in seeing their opinions translated into patterns and quantified. With skilled facilitation, the resulting conversations can be lively, are rooted in data, and help participants consider not only the uniqueness of their own perspectives on an issue, but also the perspective of others who participated in the sort.

Q helps plumb knotty, multidimensional problems in interactive and participatory ways, in a short time, with just a dozen or so participants. It is a great tool to have in your tool kit. Give it a try!

Notes

1. Thanks to Gloria Davis, Judith Edstrom, James Edgerton, Anis Dani, and Ashraf Ghani, among others, for leading the SDV team that was evaluating its strategy, and to James, Ashraf, and Anis especially for their help designing the Q-sort itself. The SD data displayed below represent a slight change from the analysis originally presented to the SD group, but the basic composition of the groups and topics addressed were not affected by the re-analysis of these data. The re-analysis was necessitated by the choice to use PQMethod as the recommended software package in this chapter.

2. PQMethod and its manual can be downloaded at no charge at Peter Schmolk's QMethod Page http://www.rz.unibw-muenchen.de/~p41bsmk/qmethod. It is available for DOS/Windows (PC), MAC, and UNIX platforms. All commentary in this chapter refers to PQMethod for DOS 2.09. PQMethod was updated and maintained by Peter Schmolk, based on a mainframe program by John Atkinson. There are also other programs available. See the Qmethod page.

3. The bibliography's link is http://www.rz.unibw-muenchen.de/~p41bsmk/qmethod/syllabus00.pdf.

4. The bibliography's link is http://www.rz.unibw-muenchen.de/~p41bsmk/qmethod/syllabus00.pdf.

5. WebQ can be found at: http://www.rz.unibw-muenchen.de/~p41bsmk/qmethod/webq.

6. I cannot show you an example from the SDV sort since the margins would be outside what is acceptable for a chapter like this.

7. Screen capture from the graphical procedure within PQMethod is not possible, so I have created tables that approximate the outputs.

Appendix 1. Items Used in the SDV Q-Sort

After an especially long journey back to DC for a Social Development meeting, you awake in the morning to find you've *really* overslept. It is December 2002. You arrive at 1818 H St., N.W., and find your colleagues to see what they've been up to. As it turns out, they have made great progress over the three years you were slumbering.… **Which of the following statements describe this new and improved Social Development Family, as it appears to you in 2002?**	
q1	SDV is composed of people with a mix of educational and professional backgrounds with management and client-interface skills that match their technical proficiencies.
q2	SDV is a leading resource within the Bank for easily applicable solutions to social issues facing country teams, such as participatory methods or local capacity building.
q3	SDV manages a network of external links to NGOs both in developing and developing nations, which enables SDV to play a role in coordinating actions among multiple actors in the development arena.
q4	SDV delivers stand-alone projects to country teams, complete with staff or connections to local staff.
q5	SDV is a provider of region-level solutions to problems; with a staff and budget that resides primarily with the regions.
q6	SDV is involved, through an allocated staff member, on nearly every relevant Bank project.
q7	SDV has its own products that can be offered directly to clients in countries.
q8	SDV is respected and in demand within the Bank as a source for efficient and fair compliance reviews.
q9	SDV serves as the primary advocate within the Bank for the needs of countries' most vulnerable populations.
q10	SDV affects change in the Bank by persuasion; its voice and recommendations are respected by Bank audiences.
q11	SDV is the primary locus of policy formation for certain crosscutting social issues.
q12	SDV is able to quickly anticipate and adjust its offerings based on the needs of client teams.
q13	SDV is a leading resource within the Bank for knowledge on a broad range of crosscutting social issues.
q14	SDV serves as a center for training and development of other Bank staff on social issues.
q15	SDV challenges and pushes the Bank to maintain a focus on programs that reduce poverty.
q16	SDV is a driver of quality assurance for Bank projects.
q17	SDV is a source of world-class research in issues related to social development.
q18	SDV attracts and retains the most skilled social scientists working in development.
q19	SDV is a constant innovator; developing a series of new products and services to offer within the Bank.
q20	SDV serves as a center for training and development of non-Bank staff (government, other NGOs) on social issues.
q21	SDV works on the front lines, allocating staff to designing and implementing projects on the ground in developing countries.
q22	SDV serves as a clearinghouse for a core set of assessment tools that are used by the majority of Bank project teams.

Appendix 2.   Answer Sheet for the SDV Q-Sort

Answer Sheet for the Q-Sort

After an especially long journey back to DC for a Social Development meeting, you awake in the morning to find you've *really* overslept. It is December 2002. You arrive at 1818 H St., N.W., and find your colleagues to see what they've been up to. As it turns out, they have made great progress over the three years you were slumbering. . . .

Which of the following statements describe this new and improved Social Development Family, as it appears to you in 2002?

Once you have finished your sort, write the number on each of your chips in the corresponding space below.						
-3 **Least Important**	**-2**	**-1**	**0** **Neutral**	**1**	**2**	**3** **Most Important**

Once you have completed the Q-sort, please double-check that there is one number in each cell and no duplicates.

Appendix 3.   Instruction Sheet for the SDV Q-Sort

Detailed Instructions (We will review this with you in person, as well.)

1. Count the blue chips. You should have 22 statements and one "header" with numbers ranging from -3 to 3. Alert one of the Monitor team if you are missing any chips.

2. Each statement on the chip concerns one element of a vision for SDV's future.

After an especially long journey back to DC for a Social Development meeting, you awake in the morning to find you've *really* overslept. It is December 2002. You arrive at 1818 H St., N.W., and find your colleagues to see what they've been up to. As it turns out, they have made great progress over the three years you were slumbering. . . .

Which of the following statements describe this new and improved Social Development Family, as it appears to you in 2002?

3. Look for a minute at the diagram on the next page and at the "header." To complete the exercise, you should organize the chips in the shape indicated by the diagram: 2 statements go under the column marked "-3: least important", 3 statements under "-2", 3 under "-1", 4 under "0: neutral", and so on. There is no difference among the importance of items as long as they are placed in the same column.

4. Most people find it difficult to do this prioritization in one step. Instead, it is easier to start by separating the statements into three piles: *not important* (or disagree), *neutral*, and *important*.

5. Once you have three general piles, focus first on the "important" pile. Leave the others aside and simply try to organize the chips you considered important into the appropriate number of slots for "1", "2" and "3: most important."

6. Now turn to the general pile you called "not important" and perform the same sort.

7. Next sort out any statements you left in the "neutral" pile in the beginning.

8. You should now have a complete sort that matches the number of statements listed on the header. Feel free to look at the whole picture and make any changes you want.

9. When you are comfortable with the sort, write the *NUMBER* of each statement in the corresponding slot on the answer sheet on the next page.

10. If you have any questions, ask one of the Monitor team for help.

Appendix 4.   Data Matrix from the 17 SDV Q-Sorts

Sort value	Respondents																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
-3	4	17	6	19	20	20	3	6	4	6	4	3	20	17	7	1	7
-3	17	12	10	20	8	14	17	17	22	17	17	17	4	4	5	7	5
-2	16	14	17	18	14	1	20	3	7	16	9	20	17	6	11	17	18
-2	3	9	9	14	3	6	7	4	6	19	8	8	21	7	4	12	3
-2	8	8	21	8	16	15	9	7	14	20	6	22	16	18	22	4	4
-1	6	19	4	12	6	4	16	15	3	4	7	4	3	20	1	19	17
-1	5	16	7	22	1	3	8	19	20	12	10	6	1	19	3	18	14
-1	1	10	15	10	13	12	15	21	9	3	15	12	7	22	13	16	9
-1	19	5	12	4	22	8	6	22	12	7	16	5	8	3	16	14	12
0	21	20	18	1	12	18	21	5	16	18	5	18	22	5	2	21	8
0	18	18	14	2	18	10	14	8	17	13	3	10	15	14	21	3	20
0	12	7	1	9	15	5	5	16	13	10	21	13	14	15	20	8	19
0	7	1	8	17	9	7	18	18	21	1	20	14	9	16	14	20	2
1	14	4	3	16	21	16	4	1	15	14	22	1	12	9	19	22	10
1	20	22	16	6	7	21	19	9	2	21	13	21	13	10	18	11	22
1	9	6	20	15	19	19	10	10	18	11	18	11	18	12	17	5	1
1	10	15	5	3	4	17	13	12	8	5	19	7	6	21	8	13	6
2	22	13	2	21	2	13	1	11	1	15	1	19	5	11	10	15	21
2	11	2	22	5	17	2	11	14	19	8	12	15	2	13	6	10	16
2	2	11	19	13	5	22	12	20	10	22	14	16	11	8	12	6	13
3	13	3	11	7	11	9	2	2	11	2	11	2	19	2	9	9	15
3	15	21	13	11	10	11	22	13	5	9	2	9	10	1	15	2	11

Appendix 5.   Links and References

Links

The Q-Method Page	http://www.rz.unibw-muenchen.de/~p41bsmk/qmethod
WebQ	http://www.rz.unibw-muenchen.de/~p41bsmk/qmethod/webq
PQMethod Manual	http://www.rz.unibw-muenchen.de/~p41bsmk/qmethod/pqmanual.htm
Steven R. Brown's Q Bibliography	http://www.rz.unibw-muenchen.de/~p41bsmk/qmethod/syllabus00.pdf

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4. Ethnographic Methods: Concepts and Field Techniques

Stuart Kirsch

Poverty is not a certain small amount of goods, nor is it just a relation between means and ends; above all it is a relation between people.
— Anthropologist Marshall Sahlins (1972:37)

Poverty is much more than a lack of income. Poverty also means [the poor] having no "voice" in influencing key decisions that affect their lives, or representation in state and national political institutions.
— World Bank (2000)

This chapter provides guidance on the application of qualitative methods developed by anthropologists for ethnographic research to World Bank project design, implementation, and evaluation.[1] It offers task managers practical guidelines for using ethnographic methods of participant-observation, qualitative and semistructured interviewing techniques, and case study analyses. It also encourages task managers to use ethnographic methods to supplement quantitative data collected by the World Bank.[2]

Ethnographic methods may be used at the level of local institutions as well as in processes that transcend local contexts. These methods can also be used to "study up," to provide information about development projects and the workings of capital.

This chapter recommends that task managers supplement ethnographic research methods with two additional techniques. The first are the participatory research methods that are normally used in rapid appraisal exercises. These methods, which emphasize local participation and making research results accessible to community members, can be used to assist the poor by providing them with valuable knowledge and skills. The second recommendation is derived from the model of community-based research, in which the skills and resources of the researcher are put in service of community goals. The resulting collaboration can increase local understanding of, and control over, the processes of development. These methods can be used to stimulate the following innovations in development policy and practice:

- Developing agendas that are responsive to community needs
- Integrating complementary knowledge bases
- Providing information and research tools to local communities and encouraging them to develop their own analyses.

While *listening to the poor* is an essential strategy for analyzing the causes and consequences of poverty and devising appropriate interventions, it poses new methodological challenges for Bank task managers. Ethnographic methods, with their focus on local knowledge and understanding, provide important analytical tools to help address the prob-

lems of poverty. Applied in conjunction with participatory research methods and the model of community-based research, these methods can provide the poor with new skills and information that will help them to analyze, understand, and alter their predicaments.

This chapter is organized in the following sections:

1. Use of ethnographic research methods
2. Key principles in conducting ethnographic research
3. Limitations of ethnographic methods
4. Identification of the right data for one's needs
5. Appropriate interview strategy
6. How to conduct effective ethnographic interviews
7. How to organize an ethnographic account
8. The case study method
9. How to combine ethnographic methods with participatory research analysis
10. How to combine ethnographic methods with community-based research

1. Use of Ethnographic Research Methods

Ethnographic research methods may be productively employed by World Bank task managers in the following contexts: (a) preliminary research to assess differences within and among communities, especially the unequal distribution of power, (b) project planning, and (c) project evaluation.

Assessing Difference within Communities

Existing rifts and fault lines in a community may well become impediments to successful project implementation if they are not clearly identified in advance. Ethnographic investigation can reveal local sources of power and inequality, including gendered differences in political participation, unbalanced land distribution, local alliances and class interests, and controls over information. Projects may also inadvertently transform these differences into new forms of inequality or exacerbate existing inequalities. These differences may occur along:

- Gender lines, for example, increasing women's workloads or restricting their autonomy.
- Generational lines, for example, providing the younger generation with the means to challenge the authority of their seniors.
- Class lines, for example, landowners may oppose land reforms favored by peasants, or agro-industry may object to water diversification projects.
- Linguistic lines, for example, creating barriers in the flow of critical information.
- Religious lines, for example, non-Catholics may resent support for Catholic community organizations.

Project Planning

Ethnographic research can also assess local responses to program assumptions, objectives, and techniques. If incorporated in the early stages of planning, ethnographic research can have beneficial impact on decisionmaking and results. Successful applications of participant-observation and other ethnographic methods in development contexts include primary health care planning in Nepal (Justice 1986), the problems of involuntary displacement (Cernea 1993), and the evaluation of a World Bank-sponsored public housing project in Ecuador (Salmen 1987).

Ethnographic investigation may be particularly useful in identifying problems inherent in planning assumptions, as Gardner and Lewis (1996:147-51) argued in their analysis of a project to construct a fish farm in rural South Asia. The initial project was strongly biased toward the introduction of new technology and failed to adequately investigate the social context. Yet, "by opening up avenues for discussion with local people, and identifying some of the potentially contradictory interests and needs of different classes and groups, better decisions [were] made about . . . what the project has to offer to specific categories of person" (p. 150). By integrating local knowledge and technologies in project planning, the anthropologists also increased the acceptance—as well as the efficacy—of the proposed project.

Project Evaluation

Ethnographic methods may also be used to evaluate ongoing development projects, as Gardner and Lewis (1996:140-41) observed in reference to a training program for rural cooperatives in South Asia. Their analysis focused on how the hierarchical organization of power within the development project impeded the distribution of knowledge about different aspects of the project. They recommended building stronger relationships between expatriate and local staff, as well as between project staff and their clients. They also advised the project to develop stronger links between the contextual knowledge of project clients and the complementary desk-based knowledge of project staff. Furthermore, their analysis of how local interests affected participation created the opportunity for enhancing participation in the project.

2. Key Principles in Conducting Ethnographic Research

There are six basic principles of ethnographic research: (a) research should be conducted primarily in natural settings; (b) direct observation should be combined with interviews; (c) research should emphasize local knowledge and categories; (d) direct personal engagement with community members is essential; (e) all of the major segments or factions of the group under study should be included; and (f) researchers must ensure that informants are not harmed by the research.

Research Should Be Conducted Primarily in Natural Settings

Ethnographic research should be conducted wherever people are actually engaged in the process under study. Research on agriculture, for example, should take place (at least in part) in the fields and the marketplace. Information gathered in natural settings such as these is richer and more contextualized than data obtained solely through formal and structured approaches.

Direct Observation Should Be Combined with Interviews

What people do and say are often different (see Bernard and others 1984). This requires a focus on *practice*, on behavior and action, in addition to how people describe their own actions or explain their motivations. The distance that comes from being an external observer may reveal patterns of behavior that may not be visible to the participants themselves. Because people do not always describe their own behavior accurately, observation is an important corrective to research methods that rely on self-reporting in questionnaires, surveys, and interviews.

Focus on Local Knowledge and Categories

Ethnographic methods focus on local concepts and understandings. Development initiatives should be responsive to local knowledge and perspectives, rather than recapitulating and imposing the views of external observers (box 1). Framing projects in local terms also facilitates participation.

Direct Personal Engagement with Community Members Is Essential

Ethnographic research relies on direct contact with the subjects of study, rather than indirect interaction through a research instrument such as a survey or a questionnaire. Rapport with

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Box 1.   Reversing Roles

By wagging the finger, holding the stick, sitting on the chair behind the table; by dominating and overwhelming thought and speech; by being rushed and impatient; by demanding information and answers; by believing that we know and they are ignorant, that they are the problem and we are the solution; by failing to sit down with respect and interest and listen and learn—in these ways we have impeded expression of knowledge and creative analysis by rural people.

Source: R. Chambers 1992, 298–99.

informants in ethnographic research differs significantly from the standards of objective formality and distance that characterize the relationships between other social scientists and the persons that they study. These relationships can be facilitated by explaining the objectives of the research project to community members and soliciting their input. Such two-way communication is the cornerstone of ethnographic research and is an appropriate starting point for any form of collaboration, including development initiatives.

Include All of the Major Segments or Factions of the Community under Study

This may require meeting separately with different groups of people, for example, with youth, women, or political leaders. The views of laypersons must be considered in addition to those of local experts. This makes it possible to map or track the distribution of local knowledge, paying attention to divergent views as well as bottlenecks in the flow of information, rather than to simply the dominant (or most common) understandings.

Ensure That One's Informants Will Not Be Harmed by the Research

The most important tenets of the American Anthropological Association's code of ethics is that the ethnographer: (1) is obligated to ensure that the research will not cause any harm to the subjects; (2) must respect local rights to privacy; and (3) is required to make public the results of his or her research (American Anthropological Association 1998; see also Association of Social Anthropologists of the Commonwealth 1999).

3. Limitations of Ethnographic Methods

The relatively small sample size of ethnographic research projects means that these studies do not provide the same guarantees of generalizability as large, controlled studies. Furthermore, ethnographic research is not generally replicable, given differences between researchers and the fact that research settings continually undergo change. Thus, the principles of reliability and generalizability must be conceptualized differently by focusing on corroboration and consistency within ethnographic accounts.

Another way to overcome these limitations is by making use of complementary methods, including surveys and questionnaires. These methods may be applied after one has carried out preliminary ethnographic research to establish the most important issues and questions. Alternatively, ethnographic methods can be used to collect and interpret data in selected locales following the implementation of rapid assessment or participatory appraisal exercises. Ethnographic research methods can also be used to supplement quantitative studies by ground-truthing or spot-checking more generalized findings. They can also be used to interpret key research results.

4. Identification of the Right Data for One's Needs

Ethnographic research produces several kinds of data. It is important to identify one's needs in advance.

- *Methodological* conclusions indicate how to collect relevant data on a particular subject. For example, what variables will give one an efficient measure of household poverty in a particular community? Data collection can then be replicated in other project areas to identify regional variation or to monitor change over time.
- *Relational* data consider how different factors or variables are interconnected. For example, how does the price of fuel affect the decisions that people make regarding the marketing of produce?
- *Sociological* data examine who participates in particular social processes and why. Such information may be critical in identifying the factors that inhibit participation in the formal economic sector as well as relative rates of success.
- *Interpretive* information considers the meanings given to specific actions or behaviors by the actors themselves, providing an impor-

tant middle ground between raw data and analytical models.

- *Explanatory* data provide information on how a particular process works. For instance, how are prices determined by competing individuals in a market? It is important to note that on their own, ethnographic methods cannot determine causality, that is, that one behavior is the cause or consequence of another. They can, however, be used to formulate hypotheses that may be scientifically tested.

5. Appropriate Interview Strategy

Qualitative interviewing is one of the primary techniques employed in ethnographic research. Ethnographic studies depend on smaller sample sizes than questionnaires or surveys, which may interview larger numbers of people in less depth. In comparison with these other methods, however, participants in qualitative interviews may provide a substantial quantity of information. There are important choices that must be made by the analyst, including structured versus unstructured interviewing, individual versus group interviewing, and multiple, in-depth interviews versus a larger sample size.

Structured vs. Unstructured Interviews

In structured interviews, one plans the questions in advance. Structured interviews generate standardized kinds of information; for example, they are particularly useful for collecting census information, genealogies, and data on exchange practices. They are most often used when collecting information from either the entire population or a representative sample. Research to identify the appropriate questions should always be undertaken first, followed by constructing and field-testing a preliminary questionnaire, which should be revised until the appropriate data are elicited. These interviews are perhaps most appropriate for topics that are already well defined. These interviews can be structured using the Focus Group methodology (see chapter 2).

In contrast, unstructured interviews allow the informants to shape the discussion, so that they direct the researcher toward the most important issues from their perspectives. Successful ethnographic research design should retain the capacity to surprise the researcher with unexpected results. The contribution of the researcher is in identifying the relevance of this information. Comparability and focus are compromised with this interview strategy, although this method has the potential to produce the most novel results. This type of interview strategy is used in Appreciative Inquiry and Scenario Analysis (see chapter 5).

Single vs. Group Interviews

Interviews with individuals provide the opportunity to learn about their personal circumstances and perspectives in detail and to discuss issues that would be difficult (or inappropriate) to address in group situations.

In contrast, group interviews reduce the pressure on the informant to respond to every question. Participants can build on the remarks of others and may encourage one another to contribute more. A wide range of views can be recorded in a relatively brief period.

The disadvantage of group interviews is the loss of privacy for informants. Another is that subjects will respond in part to their peers rather than to the researcher, reducing the researcher's control over the interview process, particularly when working with an interpreter. Groups may be assembled randomly or selected systematically to allow for a more focused discussion of a particular issue.

Multiple Interviews vs. Larger Sample Size

The interviewer must also choose between conducting in-depth interviews with a limited number of subjects and opting for a wider range of participants. Multiple interviews with the same person can enhance rapport and encourage the subject to respond more naturally to questions. The process may also teach key informants about the information that the researcher seeks, enabling the informant to

become a better source of information. However, these benefits must be balanced by the need to obtain a sufficiently large and diverse sample.

Optimizing Interview Strategies

For development contexts, semi-structured interviewing that combines both structured and unstructured elements is generally recommended (Rietbergen-McCracken and Narayan 1997a). Sanal Ece describes semi-structured interviews as a "low-cost" and "rapid" way to collect information "from individuals and small groups," recommending that they be kept "conversational enough to allow participants to introduce and discuss issues that they deem to be relevant." Group interviews are an efficient means of documenting a wide range of views in a short time. This technique can be supplemented with one or more interviews with several carefully chosen individuals. These secondary interviews are particularly useful in drawing out the full implications of the material presented in the group interviews.

The best approach to interviewing is to combine strategies. One suggestion is to begin research on a new project by carrying out unstructured interviews that generate a list of questions and topics to be pursued further. These initial interviews can be very time-consuming, but generally reveal unanticipated but critical variables. Subsequent interviews should be started with a several short questions that elicit background information for comparative purposes. Next, several questions (derived from the preliminary research) could be used to facilitate the transition to an open-ended interview. Unlike formal survey methods, it is appropriate to use information from previous interviews to guide the discussion and even to solicit commentary on this information.

6. How to Conduct Effective Ethnographic Interviews

The major factors in conducting effective ethnographic interviews are: (a) the setting,

(b) interviewer strategies, (c) recognizing cultural differences, (d) choosing the right informants, (e) recording the information and (f) reporting the results.

Setting

The interview itself should be relaxed and comfortable, not confrontational. A neutral setting is desirable. An institutional setting may make the subject uncomfortable, whereas if the setting is too relaxed, it may hinder productivity.

Interviewer Strategies

It is helpful to present oneself as informed, but independent. The interviewer should avoid talking too much, as an interview is not a conversation, although some turn-taking, that is, sharing of examples from other research contexts, may be warranted on occasion. This can also be helpful in terms of illustrating the kind of information that one seeks.

Recognizing Cultural Differences

The researcher should keep in mind that there may be culturally appropriate or inappropriate strategies for asking appropriate questions, for example, that Euro-American executives like to be asked about what they have accomplished, or that people are often reluctant to divulge "private" information about their earnings. Seek clarification of what one does not understand, but do not restrict the responses of one's informants only to terms with which one is already familiar. (A common mistake in interviewing strategies is to ask informants about their understanding of Euro-American categories, for example, leasing of land, before investigating local property models).

Choosing the Right Informants

A good informant has a formal role in the community and/or regularly participates in activities that expose him or her to the information being sought, for example, the person who takes goods to the market in a project on

marketing, or the user of a particular service. (Violation of this principle is a common cause of gender bias in research). In addition to being knowledgeable on the subject, the informant must be willing to share this information and be able to communicate effectively. The responses of a good informant should also be internally consistent. Rather than select informants on the basis of their impartiality, the interviewer must learn to evaluate the interests and stakes of the persons participating in their research.

Recording the Information

Semi-structured interviews generate more information than it may be possible to record by hand. Write notes as the conversation develops, trying not to interrupt the flow of the discussion, although it may be necessary to slow the pace. An interview should be directed back on track when the subject speaks in general terms about things about which he or she lacks first-hand knowledge. Many anthropologists tape their interviews, although working with tapes and transcripts is very labor-intensive. Leave time after each interview to write up the results while they are still fresh, including questions that one did not think to ask.

Reporting the Results of Qualitative Interviews

The interview material may be difficult to categorize, with the result that the analysis relies more on interpretation, summary, and integration than quantification and correlation. Findings are usually supported by quotations and case descriptions rather than statistical summaries and tables (Weiss 1994:3). While organizing interview data, keep the following organizational frameworks in mind:

- Qualitative interviewing can produce *detailed descriptions* of events and processes.
- It permits the *integration of multiple perspectives* that no single individual can possess in totality, for example, how the welfare system works from the perspective of legislators, case workers, and recipients.

- It can document *the steps in a process*, for example, the operation of a collective irrigation system.
- It can produce a *holistic account* of a process or an event, for example, how a particular commodity is produced, marketed, and consumed.
- It can examine *how events are interpreted*, for example, how rural villagers view pollution caused by a mining company, in contrast to scientific assessments of the damage downstream.
- Qualitative interviewing can *bridge intersubjectivities,* conveying a situation from the insider's perspective, including the use of first-person narrative description and analysis.
- Finally, qualitative interviewing can *identify variables* and *frame hypotheses for subsequent quantitative research* (Weiss 1994:9-11).

7. How to Organize an Ethnographic Account

Ethnographic description relies on discerning the "experience-near" concepts that people naturally and effortlessly use to define what they think, feel, or imagine, in contrast to the "experience-distant" categories that specialist observers use to advance their scientific or practical objectives (Geertz 1983:57-58). Discrimination, poverty, and hunger are conditions that people experience directly, whereas social stratification, structural inequality, and economic disincentives to production are examples of concepts formulated by analysts. For example, consider the presumably straightforward task of collecting economic data from families in a rural community. It is critical that research take local definitions, such as for "household," into account. In a village census in Papua New Guinea, for example, one may obtain very different answers to the simple questions of "Whose lives in this house?" and "Who sleeps in this house?" The answer to the first question includes all of those persons who have the *right* to live in a particular house, even if they were born and reside elsewhere, whereas the second question will elicit a list of current occupants.

Here are some guidelines for organizing an ethnographic account of a specific behavior or event:

- Analysis of the specific behavior or event starts with the *identification* of the behavior in question as well as related questions about the form(s) that it might take.
- Then one determines the *frequency* of the behavior, how often it occurs, as well as its *magnitude,* strength, or importance.
- One should also investigate the place of this practice within a larger *sequence* of events, including its origins (looking backward in time) and consequences (projecting forward in time), or in both directions through longitudinal study (from beginning to end).
- Also important is the *complementarity* of related events, whether *symmetrical* (a change in one prompts a comparable change in the other) or *asymmetrical* (the change in one prompts an equivalent change in the other, but in the opposite direction).
- Finally, there are the *contributing* or *associated factors*, the conditions under which the behavior is more or less likely to occur.

Consider a hypothetical study of women marketing produce from their gardens. One must investigate how often this practice occurs, and its economic significance to the participants (measured in terms of resources gained as well as their effect on female autonomy) and their households. It is also necessary to consider which events encourage direct marketing by women, including questions of origins (for instance, planting with surplus production in mind) and consequences (whether women control the money they earn), as well as longitudinal study for the long-term consequences of this behavior. What is the relationship between these behaviors and other related events? For example, how does the marketing of agricultural produce affect women's workloads, including child-care responsibilities? Finally, what factors assist women in marketing produce directly, for example, improving safety at the marketplace, the effects of government subsidies or price supports, or

the accessibility of microcredit schemes targeted to individual women?

Ethnographers also employ a variety of heuristic devices that assist them in organizing complex information in a manner parallel to the problem at hand. This list is suggestive rather than exhaustive or exclusive:

- Use specialized local vocabulary that suggests different concepts or categories.
- Structure the material in terms of the steps of the analysis.
- Organize the argument by following a sequence of events.
- Use social hierarchy as a frame of reference, for example, from lower to upper class, or from workers to management.
- Organize the analysis with reference to spatial organization.
- Track the process under study, for example, the steps involved in agriculture, from preparing the soil to harvest.
- Trace the social life of a particular object from raw material to manufacture to sale to use to discard.
- Focus on life histories (of a person or a family) or social history (of an institution or a period of time).
- Emphasize the boundaries and borders that define groups and difference, or the criteria for entering and leaving a group.

8. The Case Study Method

The case study method "involves the investigation of a *relatively small* number of *naturally occurring* (rather than researcher-created) cases" (Hammersley 1992:185). It follows the parties involved, including their interactions and reactions, as well as the consequences of the events for the people and their activities. Kane (1995:176) presents a detailed and very useful example of how the case study method operates:

Suppose you have found that while most girls from poor rural backgrounds grow up to live in poverty and to do the same work that their parents performed, others become professionals, large-scale entrepreneurs, political figures, and so on.

What made the difference in these women's lives? Case studies use almost all the research techniques in the social scientist's tool kit. Let us say that you did a survey of these women and found certain patterns emerging: they had a dynamic headmistress at school, a supportive parent, were good at a particular subject, took a particular approach toward life, and so on. One factor is unlikely to be the cause. This is what a case study is good for: showing how factors and circumstances come together over time. You can select your case studies from among women who seem to illustrate the pattern, and build a picture of them. Interview the women, their families, their teachers, and anyone else who seems relevant. Look at documents such as their old school records. Not only can they give you information, they can tell whether the timing was important. Was a particular headmistress present at a particular stage in their schooling? Observe how the women behave, their attitudes, how they go about things now. Do these give you any insights into the qualities that have helped them? Using material from all these techniques and sources, you try to show how these factors worked in real life.

The case study method focuses simultaneously on structure and agency, or practice (van Velsen 1979). In other words, it takes into consideration both the structural—political, organizational, legal, economic—factors in a society and individual choices, which combine to produce particular outcomes. The concreteness of the case study method makes it particularly relevant for research in applied settings.

Returning to the question of poverty, consider the following observation made by an Indian activist:

> In Maharashtra, where I live, farmers are not permitted to follow traditional methods of separating cotton lint from seeds under the Cotton Monopoly Purchasing Scheme; in sugarcane areas a

special permit is now required to make jaggery (unrefined sugar lump) by traditional methods rather than to give cane to the sugar factories. Peasants trying to build a small dam by selling some of the sand from a dried-up river running through their village had to engage in a four-year struggle with the state government to get the rights to prevent the sand being auctioned off to contractors (Omvedt 1993: 119).

Presumably the economic policies that Omvedt describes were well intentioned, although their impact on the poor may not have been adequately understood when they were implemented. Using case study methods, anthropologists can document the processes that create and perpetuate the cycle of poverty.

9. How to Combine Ethnographic Methods with Participatory Research Analysis

When ethnographic research methods are combined with participatory techniques (Chambers 1992, 1998; Rietbergen-McCracken and Narayan 1997a), important information can be shared with community members (box 2). Mascarenhas (1992) and Chambers (1992) described a number of strategies to involve community members in the research process. Local research assistants and other community members can map primary resource use (land, water, and forests) and other economic patterns. These variables can be given historical depth by constructing a time line of events that can be applied to past resource use. This information can be gathered in part by interviewing older people about changes to the landscape at different points in time. Seasonality can be documented by diagramming patterns of rainfall, employment, income and expenditure, credit and debt, food and nutrition, and disease. Value ranking techniques may be constructively applied to the economic importance of plants and animals or different economic activities. Wealth and inequality may be documented by establishing the economic position of community members. By participating in the data-gathering, community members

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Box 2. Participatory Research Methods
(PRA)

- *Interviews/discussions.* Individuals, house-holds, focus groups and community meetings
- *Mapping.* Community maps, personal maps, institutional maps
- *Ranking.* Problem ranking, preference ranking, wealth ranking
- *Trend analysis.* Historical diagramming, seasonal calendars, daily activity charts

Source: Rietbergen-McCracken and Narayan, 1997: 4.

have the opportunity to learn about these issues, a process that can be enhanced by visually sharing the research results in the form of maps, diagrams, and graphic representations of quantified data.

While Kane (1995) argued that "rapid assessment and participating learning ap-proaches" produce "reliable, timely and cultur-ally sensitive information," these methods have been critiqued on several grounds. Harris and others (cited in Ervin 2000:195-97) have identi-fied several potential shortcomings:

- They questioned the *accuracy* of the resulting data. By focusing on objective, tangible criteria—things that can be mapped, mea-sured, and diagrammed—they may neglect local meanings, interpretations and motiva-tions. By choosing the village as their unit of analysis, they may downplay or overlook the important interconnections to regional, national, and international political and economic systems.

- They also raised questions about *utility and feasibility*. By operating rapidly, they rarely have the time to follow through on ambigu-ous or anomalous findings that might signal key issues. They do not provide the opportu-nity to interact with local informants on a sustained basis that is the cornerstone of ethnographic methods. Data collection exercises by outsiders may not always be well received, particularly when the re-searchers' requests for assistance precede any sort of a relationship and little or noth-ing concrete is offered in return.

- Harris and others also raised questions of *propriety*. The rubric of participation has been criticized by anthropologists for masking differences within communities and for legitimizing project objectives rather than empowering project participants (Gardner and Lewis 1996:110-16).

These shortcomings suggest that the *practical techniques* associated with PRA–rather than their rapid application–should be integrated within a broader plan for ethnographic re-search and in project preparation and imple-mentation.

10. How to Combine Ethnographic Methods and Community-based Research

World Bank task managers may also put ethnographic methods in service of local communities themselves. Here I follow the innovative agenda for community-based research proposed by Sclove and others (1998), which may be applied to development con-texts. They note that "community-based research processes differ fundamentally from mainstream research in being coupled rela-tively tightly with community groups that are eager to know the research results and to use them in practical efforts to achieve constructive social change." This takes the popular notion of "participation" to its logical conclusion, by putting research—and development initia-tives—in service of the poor. Community-based research can be used to stimulate the following innovations in development practice:

Agendas That Respond to Community Needs

Ethnographic research can document the needs of community members, paying attention to differences as well as shared interests. It can identify the factors that prevent community members from achieving their goals. These may be:

- *Institutional*. For example, the inability to resolve conflicts, requiring training in conflict resolution and/or the establishment of structures that can mediate future disputes

- *Informational*. For example, lacking crucial knowledge of markets or how to succeed in the context of free trade
- *Infrastructural*. For example, lacking key resources, such as start-up capital, or the opportunity to learn skills in demand.

Ethnographic research can be applied in social audits and participatory monitoring and evaluation that help to make sure that development projects are responsive to the needs of their stakeholders.

Integration of Complementary Knowledge bases

Community members may have greater experiential knowledge that will be crucial to a project's success or failure, while World Bank task managers may have greater technical and theoretical knowledge. Integration of the two types of information will provide important resources for both groups. Community members will have the opportunity to see and think through alternatives, while task managers will be able to ground-truth their proposals. Setting up a partnership or a collaborative relationship between the two groups may also limit concerns about dependency, while maximizing the contributions of task managers.

Providing Information and Research Tools for Local Communities to Develop Their Own Analyses

Involving the poor in ethnographic research can provide them with new ways to understand local as well as translocal processes. Research results should be made accessible to local communities, rather than monopolized by the institutions or agencies responsible for their production, so that community groups may use them in practical efforts to achieve social change. Experimentation with format (for example, emphasizing graphic or pictorial representations, along with oral presentations) may be necessary to facilitate access. Ethnographic research organized in response to community concerns may also contribute to more appropriate project design.

Notes

1. This chapter benefited substantially from the recommendations of Daniel Friedheim, Ashraf Ghani, Lynn Morgan, Elisha Renne, and especially James Trostle. Thanks also to Clare Lockhart and Alicia Hetzner. The views represented here are those of the author and not the World Bank or the University of Michigan.

2. For additional information on ethnographic methods see Agar (1996), Bernard (1994), Pelto and Pelto (1988), and Schensul (1999). For references on anthropology and sociology in development, consult Cernea and others (1994). On rapid assessment procedures, see Chambers (1998).

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5. Scenario Analysis: A Tool for Task Managers

Jonathan N. Maack

Scenario analysis has been used by the private sector for the last 25 years to manage risk and develop robust strategic plans in the face of an uncertain future. Its success in helping firms manage large capital investments and change corporate strategy has made it a standard tool of medium- to long-term strategic planning. Scenarios have helped public sector agencies plan for population growth and regional development, state transportation investments, and the distribution of landfills. In the developing world, scenarios have been used to highlight the opportunities, risks, and trade-offs in national policy debates.

Uses

Scenario analysis is different from the high, medium, and low cases for lending considered as part of Country Assistance Strategy (CAS). High, medium, and low scenarios look at different rates of progress along a path that is based on a single set of projections. Scenario analysis focuses on the areas of greatest uncertainty for a country or an operation, systematically develops several plausible alternative future environments in which the operation might be implemented, and determines how they would affect its success. This structured approach to thinking about the future could help World Bank country teams make strategic choices about where and how to direct lending over the medium term in several ways:

Managing risk. Scenarios that look at future paths for a country help decisionmakers manage risk and develop concrete contingency plans and exit strategies. Describing how and why possible futures might occur enables decisionmakers to reflect on how political, social, and economic changes affect the operation and to plan accordingly.

Building consensus for change. Scenarios are a logically rigorous, transparent means to give stakeholder representatives a role in planning. Because a number of possible futures are created, many perspectives can be included, and the discussion does not revolve around the advocacy of fixed positions. All participants take part in formulating the core elements of all scenarios, and later break into smaller groups to write each of the four or five scenarios. This process helps decisionmakers share their thinking about uncertainty and risk, develop mutually understood contingency plans, and defuse blame-casting when forces outside their control lead to a change in strategic direction.

Augment understanding about the future. Scenarios are designed to bring up issues that otherwise would not be considered by exposing the underlying forces in a sector or region. They are most effective when dealing with big issues and strategic directions, rather than tactical decisions, and should not be used for short-term planning.

Monitoring progress and scanning changes in the environment. Scenario analysis can help establish indicators that create a framework to monitor the execution of a strategy. Decision-makers then "scan" the external environment for the agreed indicators that the country or region is beginning to move toward a different scenario (or to a different stage along a scenario path). The focus on key drivers of change makes explicit the assumptions underlying lending and speeds mobilization of resources in response to changes in the external environment.

Scenario analysis is a tool with a strong track record and significant potential, but it needs to be adapted and piloted before it can be more widely used in the Bank. This chapter describes a scenario process designed to be the cornerstone of a strategic plan. It also suggests ways to use the key concepts of scenario thinking in shorter exercises designed to help decision-makers minimize risk, address key uncertainties, and more effectively share their thinking with stakeholders about a lending program and the country's future.
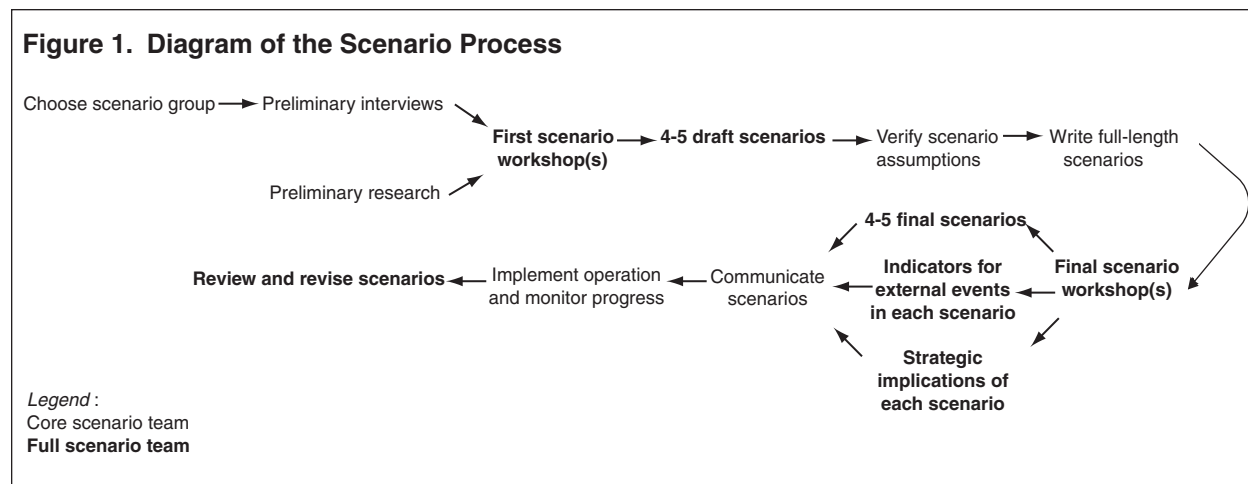
Process

Scenario analysis follows a systematic process to create a set of four to five plausible and vividly contrasting narratives that describe possible evolutions of key areas of uncertainty (figure 1). These narratives, known as scenarios, examine the social, political, economic, and technological forces that will impact on a project or strategy. Scenarios are arrived at by a team composed of key decisionmakers, experts, and stakeholder representatives during two or three one-day workshops held over a period of weeks or months. Because they focus on areas of uncertainty and the potential for unexpected *future* discontinuities, scenarios provide a perspective not captured through projections based on *past* data.

Scenario analysis involves *constructing or developing scenarios* (steps 1-4 below), and *integrating the content of scenarios into decision-making* (steps 5-8 below). During the exercise itself, it is important that both of these elements receive equal attention and that mutually acceptable triggers and measures of success be agreed as outcomes of the process.[1]

1. *Define a focal issue or decision*. Scenarios are best suited to looking at the future through the lens of a specific issue, such as the likely outcome of a national election leading to a transfer of power or a currency devaluation. Without this grounding, there is a danger that they will be too general.

2. *Identify driving forces.* These are the social, economic, environmental, political, and technological factors that are most relevant to the focal issue. They should be prioritized by the scenario team according to their level of predictability and importance in affecting the desired outcome.

Figure 1. Diagram of the Scenario Process

Choose scenario group → Preliminary interviews

Preliminary research

First scenario workshop(s) → **4-5 draft scenarios** → Verify scenario assumptions → Write full-length scenarios

4-5 final scenarios

Review and revise scenarios ← Implement operation and monitor progress ← Communicate scenarios ← **Indicators for external events in each scenario** ← **Final scenario workshop(s)**

Strategic implications of each scenario

Legend :
Core scenario team
Full scenario team

3. *Write scenario plots*. These are the stories that explain how driving forces interact and what effects they have on the operation or strategic direction being discussed.

4. *Flesh out scenarios*. Good scenarios combine a solid understanding of relevant present trends with a clear focus on the outcomes sought by decisionmakers. They should incorporate lessons revealed by analysis of quantitative and qualitative data relevant to the assumptions underlying each scenario.

5. *Look at implications*. After scenarios have been fully developed, decisionmakers should study their implications for the outcomes being sought by the operation.

6. *Choose "leading indicators."* These indicators should help decisionmakers monitor changes in the external environment as well as developments in the project.

7. *Disseminate scenarios*. Once scenarios have been built and refined, they should be written in succinct, easy-to-read language and disseminated within implementing organizations and to the public.

8. *Integrate scenario outcomes in daily procedures.* Change the incentive system in affected agencies and areas to ensure concerted movement toward the strategic goals that have been formed on the basis of the scenarios. Use or modify existing systems to monitor progress toward operational goals as well as changes in the external environment.

Scenarios in Practice

The two primary situations in which scenario analysis has been used by the public and private sectors are:
1. When considering a significant capital investment decision or sectoral strategy
2. When developing or reformulating national or corporate strategy.

Scenario Analysis for Capital Investments

Scenario analysis is extensively used in the private sector by companies that make large investments in productive capital or research and development. Utilities, hospitals, oil companies, and pharmaceutical companies all invest significant amounts of money in research, development, and site construction. They need to make all possible efforts to ensure that their investments will remain viable over the long term. Scenario analysis has helped them examine the political and regulatory environments, the likely attitudes of consumers, and other relevant factors to attempt to ensure that their investments continue to be profitable as conditions change (box 1).

Box 1. Scenario Analysis for Capital Investment: Shell Oil Company

Scenarios to assess the riskiness of an investment strategy need not be simplistic. The process of identifying the real focal issue behind an investment is often quite revealing. For example, Shell Oil Company has used scenario analysis since the 1960s. When Shell began looking into investing in new oil fields in the late 1970s, it asked its scenario team to evaluate the investment in terms of forces that would affect the price of oil in Western Europe.

The team came back with several scenarios. One cited the risk of the collapse of the Organization of Petroleum-Exporting Countries (OPEC) due to internal tensions and external pressure. Another looked at the demographics and political situation in the Soviet Union and noted that a relaxing of tensions with the West could lead to large amounts of oil from Central Asia being exported to Europe.

Another looked at a future in which the pressure of high prices and environmental organizations led to technological breakthroughs that reduced the dependence of Western Europe on oil and gasoline.

All of these scenarios were plausible, and, indeed, all did come to pass to a degree. Shell planned its investments to take advantage of potential technological breakthroughs and to grow through a flexible series of small expansions. When OPEC was no longer able to control enough of the oil supply to keep prices high, Shell's conservative position allowed it to rise from seventh in the industry to third. Its small investments remained profitable while competitors lost significant amounts of money as riskier oil fields tapped during a period of high prices failed to perform.

In the *public sector*, scenarios have been used to guide large capital investments in transportation, landfill development, and city planning (box 2). These scenarios deal with potential changes in user behavior, the utility of capital investments to a mobile population, and the economic and social pressures likely to develop on a national scale over time. Special emphasis is also placed on likely voter pressures, larger political and demographic trends, and ways to ensure continued political support for projects once they are underway. Scenarios can help create the best long-term strategies for continued growth and flexibility for states and regions.

*Scenario Analysis for Long-Range
National Strategy*

Significant scenario development also has been done in the public sector at the national policy level. Scenarios have been used to shape agendas for change in Colombia, Guatemala, and South Africa (box 3). In these countries, which were mired in turmoil or facing fundamental socioeconomic crises, leaders from academia, business, trade unions, the military, rebel groups, political parties, and peasant unions came together to discuss steps forward.

When used in the public sector, strategic scenarios have the goal of helping decision-makers and key stakeholders agree on substantive messages about possibilities for future change. The process helps create informal networks and understanding among the participants that can lead them to become champions of the policy recommendations that come out of scenario discussions. The second function of public sector scenarios is to engage public opinion. The completed scenarios are simplified and broadcast in the mass media, explained at local meetings, and highlighted in leaflets and policy bulletins. Shaping public debate about issues of national concern is made easier by the flexibility of the scenario methodology. Scenarios are stories that bring together the key elements of policy in a narrative that can be understood by the public. Because each scenario can illustrate plausible changes along many dimensions, discussion begins to focus on the *interactions among forces*, rather than on specific issues.

Adapting Scenario Analysis to World Bank Interventions

In the World Bank, scenarios can provide assistance in formulating goals, designing projects, building ownership, and monitoring progress. Scenarios are most valuable when they are brought in at the point in the project cycle at which the overall direction of the

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Box 2. Scenario Analysis for the Public Sector: New Jersey Department of Transportation

In the mid-1990s, the State of New Jersey used a participatory scenario process to develop a vision for the future that would help it deal with intransigent transportation issues. The core decision was whether to focus on sustaining existing roads, expanding the highway system, or building more light rail. To develop the scenarios, the scenario team looked at the likelihood of regional and national economic growth, citizen priorities, environmental pressures and political will. Research, which included a values survey of a cross-section of citizens and businesses, studies of existing travel and commerce patterns, and a study of conventional forecasts, was carried out as part of the process. In addition, consultations were held in communities across the state.

The scenario team included state politicians, department of transportation decisionmakers, experts, academicians, and activists. The scenarios focused on economic growth and citizen attitudes (see box 7 for full scenario matrix). Special attention was paid to regional growth, because New Jersey is a major transportation corridor between the two large metropolitan areas of New York and Philadelphia.

The scenarios were widely publicized and sparked significant public debate. All of the scenarios highlighted the importance of innovation and cooperation with the public sector and the need for environmentally sound development. Through innovative public-private partnerships, the department of transportation leveraged federal funds for its long-term plan of mixed road-rail development. Business practices were also changed to allow for more citizen interaction.

Source: Adapted from Bonnet, 308-24

Box 3. Scenario Analysis for National Strategy: South Africa

In 1990, four distinct—and evocatively titled—scenarios for South Africa's post-apartheid future were developed during three 3-day workshops. The process was initiated by a local university and took place during the heated national debates between the National Party and the African National Congress (ANC). The participants looked at the possible actions of various stakeholders in the political process and came up with four scenarios.

1. *Ostrich.* A closed transition process in which conservative parties attempt to forge a nonrepresentative compromise government rather than reach a negotiated settlement. The outcomes of this policy, named after the bird's habit of sticking its head in the sand in the face of danger, are political and economic isolation and deepening ethnic tensions.

2. *Lame duck.* A half-hearted and prolonged transition of power that creates a coalition government stripped of any real authority. The outcomes of this scenario are a deteriorating political climate, lack of sufficient investment in economic redevelopment, and the risk of continued isolation.

3. *Icarus.* A populist national government takes power and adopts an unsustainable policy of high government spending and taxation. The outcome of this policy is short-term prosperity followed by a deep economic slump that leaves the country in worse condition than it was during the transition.

4. *Flight of the flamingos.* A smooth transition followed by a move toward sustainable policies to increase growth and inclusion. This story, named after the slow take-offs and close flight patterns of flamingos, shows steady economic growth, bipartisan priority setting, and a greater increase in long-term benefits to the poor.

The scenarios were developed by economists, businesspeople, politicians from all major parties, academicians, and NGOs. They received heavy press coverage, and F. W. de Klerk, leader of the National Party, was quoted as saying that he was "not an Ostrich." The Icarus scenario, which critiqued unsustainable government spending, was endorsed by key left-wing economists and comforted the local and international business community. The transition government that eventually came into power was notable for its restrained economic policies and its success at using tested, sustainable methods to reach the poor. The scenario process was an excellent way to broaden the involvement of stakeholders in policy dialogue without creating chaos in the decisionmaking process.

Source: Adapted from Kahane, 325-32.

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intervention is being designed or significantly rethought. If it is meant to be the key strategic framework for an operation, the scenario process should be integrated with the budgeting, negotiation, and implementation of a project rather than treated as a stand-alone exercise.

Such an application of scenario analysis would add significant value in five strategic areas:

1. *Formulation of Country Assistance Strategies.* The CAS is the Bank's business plan in a nation, the closest analog to the corporate strategies around which scenario analysis techniques were developed. Scenarios can increase the selectivity and realism of a CAS by focusing discussion on likely future opportunities and constraints. The technique has been presented in clinics for Bank task managers on formulating CAS documents. The combination of a focus on areas of key uncertainty and a strong participatory element in the scenario analysis make it well suited to this approach. Scenarios are also valuable for monitoring the progress of both the client and the Bank toward the goals outlined in the CAS.

2. *Formulation of participatory national strategies.* The emphasis on participation makes scenarios useful for planning processes that need dialogue and agreement among multiple stakeholders, such as the Poverty Reduction Strategy Paper (PRSP) and the Comprehensive Development Framework (CDF). A country-driven scenario process is an excellent way to develop ownership and incorporate the political situation and relevant external forces in PRSP and CDF documents. Because the scenario process can be led by the country, as it was in Colombia and South Africa, the Bank can concentrate on its comparative advantage: leveraging the input of macroeconomic, political, and sectoral experts to add depth and believability to the scenarios.

3. *Formulation of a medium-term framework for program loans.* Scenario analysis is most effective in looking at medium- to long-term time horizons. It is thus well suited to helping the team prepare a medium-term framework that looks at the desired outcomes of lending and the uncertainties that it will face. Because the signposts of progress toward different scenarios are formulated by a group, the process makes the framework more transparent and increases the motivation of both Bank and client to act on strategic recommendations. Scenarios also aid in the development of exit strategies based on mutually understood changes in the agreed indicators.

4. *Developing benchmarks and goals for an Adaptable Program Loan.* Scenario analysis can provide an effective and inclusive method to create a long-term set of benchmarks for extended interventions, such as the Adaptable Program Loan (APL). By including all stakeholder representatives in the risk analysis and indicator development process, scenarios establish a clear and consistent set of benchmarks that are widely understood. Due to the need for regular review and approval in the face of emerging needs, the APL project cycle favors the regular monitoring and revision that make scenarios most useful.

5. *Analysis of risks and impacts of adjustment loans.* Adjustment operations frequently involve institutional change. Scenarios are an excellent way to look at the potential outcomes of changing the formal and informal rules in a sector or an industry. Changes in the way people do business can have unexpected results. Disciplined scenario analysis enables decisionmakers in the Bank and the client government to clarify the drivers of change in a given sector and explore potential interactions among those drivers and the impacts of changes. Because they build consensus among labor, public, and private sector leaders about what needs to be changed and why, scenarios can help task managers shape the public dialogue about adjustment operations by clarifying the objectives and reasoning behind an intervention.

Adapting and Shortening the Scenario Process

Scenarios can be adapted to enhance strategic planning at a number of stages in the project cycle. Scenarios are, above all, a way of thinking about the world and can be used in shortened form to change the terms of dialogue and introduce a new way of interacting. A brief, participatory scenario workshop can be arranged early in the design phase to build scenarios and gather input quickly. Alternately, a more extensive process with supporting research can be carried out during the development of a risk management framework and used to develop a system for monitoring and evaluation.

An example of a streamlined scenario implementation may clarify how the technique can be adapted. If the task manager of an adjustment loan wanted to use scenarios as one input during project design, but did not want to execute the full process, he or she could set up scenario workshops with relevant stakeholders during preparation and appraisal to build simple models of relevant forces. These basic scenarios could be sketched out by the group in two one-day workshops during a two-week preparation mission as a form of brainstorming and negotiation. They could then be integrated in the early stages of project planning. If there were enough time and money, the period between preparation and appraisal could be used to flesh out the scenarios with statistical projections and other relevant information. The final workshop, in which the completed scenarios would be further questioned by the group and applied to create contingency strategies, could be held during the appraisal mission.

Running a Scenario Exercise

The following description of the stages of a scenario exercise will give task managers a background in its practical requirements. This description should enable task managers to lead a simplified scenario analysis process, make a significant contribution to a scenario team, or work knowledgeably with private sector consultants.

Stages of the Scenario Process

There are no fixed rules for how to carry out a scenario analysis, but several stages occur in almost every case. The actual creation of scenarios takes place with a group in a workshop. The organizers need to carry out a number of activities before the first and last workshops. The four broad stages to the process follow. The specifics of each stage will be discussed later in the chapter. An illustration of a sample process from start to finish can be found in appendix 2.

1. *Preparation.* A number of tasks need to be carried out before the scenario workshops. They include defining the scope of scenario use, choosing and interviewing the scenario team, and preparing background material for the workshops. These are crucial steps in the process, because they help the task manager build confidence in the scenario exercise and gain an early understanding of the issues that will be most important to participants. The specifics of this process are detailed in appendix 1.

2. *Building the scenarios.* This process can occur in one workshop, or two held back to back. Together the scenario team determines the focus of the intervention, identifies and prioritizes the key external factors that will affect its success, sets them in a matrix to differentiate their effects, and writes simple scenario plots.

3. *Investigating and writing the scenarios.* This exercise is carried out between workshops. The task manager and core team gather relevant qualitative and quantitative information to determine whether the assumptions made in the scenarios are accurate. Decisionmakers from the scenario team should write more finished drafts of the scenarios.

4. *Using the scenarios to plan strategy.* In this workshop, the scenario team goes over the finished scenarios and looks at the implications for the strategic decision being made. Specific external "signposts" of changes in the key forces are also identified at this stage.

Building the Scenarios

The first step of the scenario workshop is to clarify the decision focus of the exercise. This should have been outlined to individuals when they were invited to participate, but it is important for the group to work together to clarify the issue. As this discussion can become contentious, it is best to state clearly within the first 10 minutes of the meeting the behavior expected during the meeting. Propose, or ask the group to agree on, whether a facilitator is needed, and, if so, who it will be; a system to recognize speakers; a time limit on the length of comments; and other basic procedures of the meeting.

Discussion of the decision focus forces all participants to concentrate on the *goals* sought by the development intervention rather than on the specific *process* that will be used to reach those goals. This *separation of means from objectives* is key to giving the group the conceptual space needed to come up with new approaches. Several key issues should be addressed when deciding the decision focus:

1. *Desired outcome of the intervention.* This discussion should begin with input from the organizers of the event but then will be open to further discussion. The group may come up with a different formulation of the desired outcome than was originally brought to the table. This reformulation will guide the group's understanding of the forces that will affect it.

2. *Desired outcome of the scenario process.* Once the outcome of the intervention is clarified, the role that scenarios will play should be explained. Will they be used as a way to test existing strategies for riskiness, as a tool to formulate new strategies, or as a means to build a shared vision for governmental or organizational reform? The organizers should clarify how they envision the scenarios being applied to strategy, and explain any internal business tools that will be used to put that strategy into practice. For example, if the goal is the creation of a medium-term framework to guide the sequencing of a program of adjustment loans, the group needs to understand

how the program of loans works and where scenarios fit in.

3. *Time frame*. The time frame will significantly affect the range of issues a scenario can address. The technological and economic shifts that should be considered in a 20-year time horizon may have no relevance for a 5-year plan. Scenarios should be conceived of as ways to shape strategy within the medium term. The time frame should be long enough for significant changes to occur in the driving forces, ideally 3 to 5 years.

Key Factors

After the decision focus has been discussed and analyzed, the team should brainstorm key factors for the success of the strategy or operation. This session should be led by a person with experience in facilitation. Key factors for project success can include:

- Specific events, for example, the passage of legislation that gives legal status to NGO microcredit providers
- General trends, for example, a decline in the cost of fertilizer
  Improvements in service delivery measured by positive beneficiary feedback as well as number of persons served.

To get as many dimensions of success as possible, the facilitator should encourage all members of the group to participate during this phase. After a brief brainstorming session, the clusters of logical association and key factors developed by the analysts after the preliminary interviews (see appendix 1) can be added to the list. These can become building blocks for discussion and make it easier for different groups to understand one another.

Two Driving Forces: External and Organizational

The free association used to identify key factors can lead to a jumbled list. The next phase in the process consists of the group's looking at the underlying causes of the issues that have come up in individual interviews and group brain-

storming. The goal of this stage is to build a good conceptual model of the forces that are most relevant to the decision focus.

There are two large categories of driving forces. *External forces* are the social, economic, environmental, and political forces in society that are relevant to the topic of the scenario discussion but are outside the participants' control. *Organizational forces* are the product of the actions of the Bank and other stakeholders and can be affected by the project. These driving forces will become the key foci of further scenario development, and they can be identified intuitively by using the visual clustering method described in appendix 1 or separated into a series of logical groups and analyzed.

External Forces: The SEEPT (Social, Economic,Environmental, Political and Technological) Framework

The simplest way to systematically address external forces is to organize the issues identified in the brainstorming sessions and preliminary interviews in five broad categories:

1. Social
2. Economic
3. Environmental
4. Political
5. Technological.

The SEEPT framework (table 1) is an efficient way to obtain a holistic view of the many forces that will affect a project's success. Rather than focusing on a single dimension, such as economic performance, the group can look at how the forces relate to and affect one another. The specific events identified in the initial brainstorming of key factors can be thought of as symptoms resulting from these deeper forces. For example, the strain on urban infrastructure that results from migration to cities is intimately related to demographic, social, and economic pressures. It may also be tied to political pressures or regional instability. A simple device like the SEEPT framework can help decisionmakers look at all the dimensions that affect an urban development project at once. As the group thinks about how these forces could plausibly change and interact in

Table 1. Illustration of the SEEPT (Social, Economic, Environmental, Political and Technological) Framework for Identifying External Forces

This is an illustrative SEEPT framework for a national-level scenario exercise. This chart can serve as a menu for scenario teams or as a stand-alone example of the sort of questions that can be posed in each of the SEEPT categories. The Social Indicators of Development, Country Political and Institutional Assessment information, United Nations Development Programme (UNDP) Human Development Indicators, and the World Development Indicators are useful sources of data for these domains.

Domain	Category	Examples
Social	Social factors	Education levels, social priorities, cultural and class tensions, land and water rights, differentiated membership in groups and associations, gender issues
	Demographic patterns	Age, family, household, and ethnic structures; regional and national migration patterns; wealth distribution, including regional and national poverty rates
Economic	Macroeconomic conditions	GNP, balance of trade, rate of inflation, exchange rate; current and future relations with international financial markets, current debt levels; governmental expenditures, deficits Changes in the economic structure of nation (dependence on single export, percentage of exports in finished goods), formation of new regional trading blocs
	Microeconomic conditions	Change in size, type and ownership of firms; formal and informal labor force structure by region; changes in economies of scale/structure of key industries
	Market forces	Spending patterns of consumers (urban/rural, national/regional), international demand for key exports Distribution and efficiency of rural and urban markets, impact of the informal sector, sources of competition (national, regional, international)
	Impacts of global economy and development	Volume of assistance from multilateral and bilateral agencies, conditions for assistance (policies, requirements)/harmonization Risk tolerance and conditions for entry and exit by international firms, stake in local economy by international firms
Environmental	Physical environment	Air/water/land pollution trends and locations, environmental quality issues (global warming)
	Natural resources	Energy prices and availability (likelihood/impact of an oil shock), raw materials (rate of depletion, ease of access), land use (farming methods, erosion levels), sustainability (strategic use of resources**)** regional distribution of natural resources
Political	Geopolitical	Trends in international relations; relationship with other nations in region (regional trading blocs, military alliances); levels of tension, conflict (regional, international); trade and protectionism
	National	Change in governmental development strategy and policy (privatization); changes in legislation (including regulation, creation of enabling environment); changes in structure and responsibility of ministries; changes in rules governing formation and functioning of parties; stability of government, likelihood of change/overthrow
Technological	Infrastructure	Level of technology in key industries, emerging technologies, capacity to manufacture technology for export
	Future directions	Basic research and technical education trends in nation; "digital divide" – computer and telecom infrastructure/trends; potential for the rapid diffusion of new technologies from abroad

Source: Adapted from Wilson 1987.

the future, the group could create differentiated stories about how broad future trends and developments could affect the operation.

Organizational Forces

Organizational forces are the specific actions and general positions taken by actors (individuals, agencies, and organizations) that affect project success. These actors may include government agencies, the private sector, political parties, NGOs, and international agencies. General trends in governmental actions might include a move toward privatization of state industries or trade liberalization. As in the case of external forces, the behavior of actors is interconnected. If the government and trade unions work together to create an enabling environment for trade, international businesses might begin to make serious investments or solidify their presence. The actions of agencies and organizations should make sense within the economic and political environment of a scenario. If organizational forces are used as key scenario drivers, they should be consistent with past behavior in that organization. Radical changes of position on critical issues should not be incorporated unless the rest of the scenario environment makes such changes likely.

Prioritizing and Analyzing External Forces

Identifying key factors and assembling a list of relevant forces are the first steps. This list can yield as many as 50 driving forces and key factors. The next steps are analysis and prioritization, which reduce this larger set of forces to those that are most relevant to the decision focus, are predictable vs. unpredictable, and will respond to actions by participating agencies and groups. Complex analysis is not required. This is a logical exercise based on rigorously thinking through the forces and trends already noted and identifying the ones that are most important for the decision. At a minimum, this discussion should include:

Identification of cause-and-effect relationships. How do these forces interact? What impact do they have on other forces?

Apparent direction of these forces today. What are the current trends in these forces and why? One of the most critical tasks for scenario analysis is a good understanding of the causes of present trends and conditions. Present trends are a good base from which to extrapolate future interactions among driving forces.

Relevance to the decision focus. What is the magnitude of the impact of these forces on the future course of key factors for project success? Are reforms dependent on a political coalition that draws its support from a constituency whose influence is shrinking?

Future prospects. How much, in what ways, and how fast might these trends change in the future? At this stage of analysis it is integral that the scenario team differentiate among trends that are:

- *Predictable.* Certain things, such as current demographic trends, are already known and will need to be taken into account in all planning.
- *Unpredictable/uncertain.* Market prices, currency rate fluctuations, demand for export goods, and changes in political values are all unpredictable elements.

The impact-uncertainty matrix is an easy way to combine key factors and driving forces in a clear, legible format. The matrix ranks the forces on a simple "high-medium-low" rating system. The best way to determine prioritization is through a vote. A vote gives all participants equal voice and leads to a picture of the key forces that incorporates multiple viewpoints. The facilitator should give each person in the group approximately 20 chits to "spend" as "votes" and ask each individual to grade each force according to:

- Its impact on the key decision factors (a participant should "spend" more chits on the forces he or she sees as most important) and the degree of uncertainty (each participant should "spend" more chits on the forces that are uncertain)

• The number of chits that equal a "high, "medium," or "low" rating should be decided on by the group based on the number of forces that the group has devised and the number of people in the group.

The impact/uncertainty matrix (table 2) is an illustration of how the ranking system can be used to narrow the list of forces to the most relevant for differentiating scenarios. Scenario plots should be built around high-impact/low-uncertainty issues (highly relevant issues with predictable future outcomes for which current planning *must* prepare) and high-impact/high-uncertainty issues (issues that could shape different futures which planning *should* take into account).

Creating a Scenario Matrix to Outline Four Distinct Scenarios

The results of the impact/uncertainty matrix are seldom conclusive. A number of forces will cluster in the upper right hand corner (highly unpredictable/highly relevant). The group needs to *pick the two most relevant of these forces* and set up a scenario matrix using them as the axes. The group will then work out the four permutations of these forces and build the scenarios around them.

The scenario matrix (box 4) ensures that each scenario will be different in a logical, nonrandom way, because the top scoring factors will be key drivers in *all* scenarios. The scenario team discusses each permutation of the two

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Table 2. Example of Impact/Uncertainty Matrix

Degree of uncertainty

Low	Medium	High	
Critical planning issues Highly relevant and fairly predictable (can often be based on existing projections). Should be taken into account in *all* scenarios.	**Important scenario drivers** Extremely important and fairly certain. Should be used to differentiate scenarios. Should be based on projections but potential discontinuities also should be investigated.	**Critical scenario drivers** Factors and forces essential for success and highly unpredictable. Should be used to differentiate scenario plots and trigger exit strategies.	**High**
Important planning issues Relevant and very predictable. Should be figured into most scenarios.	**Important planning issues** Relevant and somewhat predictable. Should be present in most scenarios.	**Important scenario drivers** Relevant issues that are highly uncertain. Plausible, significant shifts in these forces should be used to differentiate scenario plots.	**Med**
Monitorable issues Related to the decision focus but not critical. Should be compared to projections as scenario is implemented.	**Monitorable issues** Related but not crucial to the decision focus. Should be monitored for unexpected changes.	**Issues to monitor and reassess impact** Highly unpredictable forces that do not have an immediate impact on the decision focus. Should be closely monitored.	**Low**

Level of impact

Note: Shaded areas indicate key focus.
Source: Adapted from Wilson 1989.

most relevant forces. The decisions made about how these forces are likely to behave sets the tone for each of the four different scenarios. This process enables the quick formulation of distinct, logical scenarios. Because the decision on the two axes of uncertainty is group-driven, it encourages group members to challenge one another and seek justification that a certain force is the best way to differentiate a scenario. Narrowing the discussion enables the group to explore ways in which these two forces could develop and how these developments can help focus the other forces around a distinct plot.

What Makes a Good Scenario Plot?

The scenario matrix approach is designed to cut through many complex issues and isolate two sources of great uncertainty and great importance for the success and sustainability of the work being planned. This process of reduction may leave members of the scenario team uncomfortable, because not all issues can be effectively addressed in terms of these two key axes of uncertainty. Although these forces will remain the skeleton of each future narrative, the next phase involves the addition of detail to the stories and the inclusion of a larger number of driving forces. A good plot combines driving forces in a dynamic, coherent story.

Key Elements

The key elements of a good scenario plot are:

- *"Critical Planning Issues" from the Impact/ Uncertainty Matrix.* These are the comparative sureties in the future that are particularly relevant to the decision focus. The critical planning issues may concern specific aspects of the issue that the task team is studying and should have a role in all of the stories about the future. Issues such as demographic trends should be implicit in all plots, but the role they play may be quite different depending on how political, social, and economic factors affect issues such as education, employment, emigration, and consumption.

- *"Critical Scenario Drivers" from the Impact/ Uncertainty Matrix.* Each of these factors should play a role in at least one scenario. That role should work naturally with the other forces in play in each scenario, adding the twist of giving decisionmakers a chance to explore how a particularly positive or negative development might affect the operation/strategy as a whole.

- *Systems of interaction among forces.* The numerous relevant forces and issues developed by the group should be explored systematically in each of the different scenarios. Changes in the two key axes of uncertainty can be thought of as stones tossed in a pond: their aftereffects will ripple through the host of other forces that also bear strongly on the decision focus.

An easy way to start the process is to think of different static "end states" that could result from the interaction of two forces, and work backwards to explore how forces would need to interact to reach that point. Some of the key factors cited by the group earlier in the exercise will be precisely this sort of "end state." It is important to remember, however, that scenarios are not descriptions of a static future world described in great detail. They are narratives about how events might unfold between now and a future date given the ways in which the forces that the scenario team has identified interact.

Scenarios should be:

1. *Plausible.* The events in the story should be possible, and the narrative should be credible (the descriptions of what happened, and why and how it happened should be believable).

2. *Distinctive*. Each scenario should focus on a different combination of the key forces. Scenarios should be clearly differentiated in structure and in message, not variations on a single theme. Multiple scenarios should be used to explore how different permutations of the same key forces can yield very different worlds.

3. *Consistent*. Each scenario should have a strong internal logic. The goal of scenarios is to

Box 4. Scenario Drivers in the New Jersey Department of Transportation

The decision focus was whether transportation investment should focus on sustaining existing infrastructure, expansion of highways, or the development of light rail. The group agreed on the three most important driving forces for the scenarios:
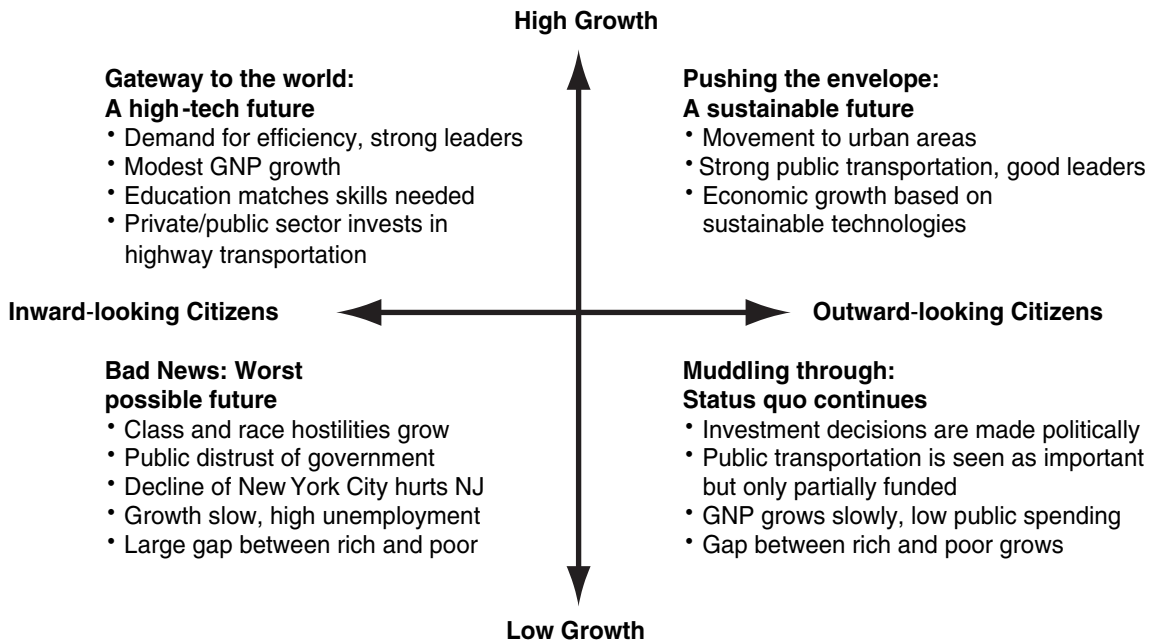
1. *Rate of regional and national economic growth*. The team looked at high, medium, and low levels of GNP growth and the rise or fall of the two major urban areas that affected the state. They studied the nature of growth (technological or industrial) and the effect of the economy on private investment in transportation and public sector revenue.

2. *Values and attitudes of citizens.* Citizens were modeled as inwardly oriented and individualistic, or outwardly oriented and communal. The inward-looking citizen had a continuing love of cars and single-family homes, a strong distrust of government, and was rent-seeking. The outwardly oriented citizen was more urban and environmentally conscious, wanted to revitalize cities, and trusted government more.

3. *Government leadership.* The government was modeled as oriented to the short term and crisis management, or oriented to the long term and able to stay with a stable plan.

Each of the scenarios looked at the relationships among the three driving forces and their effects on factors such as the environment, investment, education (what is the workforce doing?), and traffic flows. Scenario logics were consistent. A low-growth scenario had a greater split between rich and poor, an emphasis on safety, and a government that focused on short-term solutions due to constrained resources. In another scenario, technology drove strong national and regional growth; immigrants were middle-class; and convenient transportation was emphasized in more densely developed urban areas.

Scenario Matrix: New Jersey Department of Transportation

High Growth

Gateway to the world:
A high-tech future
- Demand for efficiency, strong leaders
- Modest GNP growth
- Education matches skills needed
- Private/public sector invests in highway transportation

Pushing the envelope:
A sustainable future
- Movement to urban areas
- Strong public transportation, good leaders
- Economic growth based on sustainable technologies

Inward-looking Citizens ← → **Outward-looking Citizens**

Bad News: Worst
possible future
- Class and race hostilities grow
- Public distrust of government
- Decline of New York City hurts NJ
- Growth slow, high unemployment
- Large gap between rich and poor

Muddling through:
Status quo continues
- Investment decisions are made politically
- Public transportation is seen as important but only partially funded
- GNP grows slowly, low public spending
- Gap between rich and poor grows

Low Growth

Source: Adapted from Bonnet, 308-24.

explore the way that forces interact, and each action should have a reaction. Neither actors nor external factors should completely overturn the evidence of current trends and positions unless logical explanations for those changes are a central part of the plot. For example, it is highly unlikely that there will be low inflation and high growth, or that a regulatory agency that was formerly very strict will significantly loosen its requirements without some extenuating circumstances.

4. *Relevant*. Each scenario, and the entire set of scenarios taken as a whole, should contribute specific insights into the future that relate to the decision focus chosen by the group. It is important for the author to return frequently to the objectives of the exercise as she or he builds the scenario and assesses which of the external and institutional factors created in brainstorming should be explored.

5. *Creative*. The emphasis on logic and rigor in the process should not stamp out innovative thinking. Part of writing a scenario is enticing the reader into the scenario world. The author can do this by telling his or her story through parables, citing examples, or using famous figures as stand-ins for complex ideas.

6. *Challenging*. Scenarios should challenge conventional wisdom about the future. When thinking about the major sources of uncertainty, the author should try to explore alternatives that will significantly alter the basis for the assumptions that go into the "official future." It is often worthwhile to write a "wild card" scenario that uses some of the key forces not listed in the scenario matrix. This gives the set of scenarios as a whole more breadth and strength.

Scenario Plot Types

Scenario plots should differ from one another without being wildly positive or negative. It is important that they challenge assumptions while remaining balanced enough that they are not dismissed out of hand. Here are some plot "types" that can help create stories about the future:

- *Winners and losers.* These scenarios explore the future in terms of ascendant versus declining organizations, nations, or social forces. Examples include scenarios that look at trading blocs, focusing on dominant groups and exploring how different nations would fare in a climate of struggle and change.
- *Good news/bad news*. These scenarios use large external factors, such as currency devaluation, a massive increase in corruption, or breakdown of the rule of law, to encourage rethinking existing strategies and priorities. These stories ask decisionmakers "what if?" questions about the logic of their long-term plans in the face of key forces that can move in unexpected directions.
- *States of change*. This model is one of additive change, a world in which a series of alterations feed off one another to move society into a different mode. These alterations can involve a series of innovations leading to improvement, or a series of mistakes leading to political gridlock and economic stagnation. Some models focus on structural change in a nation (the ending of apartheid in South Africa), an industry (the introduction of software to produce online reports, removing the need for specialized printers), or a sector (environmental movements spur strong pressure to build public transportation and reduce pollution) and how the change will affect different actors and the viability of investments.
- *Cycles.* Another way of looking at change is through cycles, both economic and political. In this model, the rise and fall of social groups or stakeholders can be charted in relation to the economic cycles of relevant industries or international trends.
- *Wild cards.* Wild-card stories explore how catalytic developments could completely reshape a society. For example, the development of the internet and its effect on business in the United States is a wild-card scenario that is still being played out. Other examples might include the unexpected discovery of oil reserves or other resources. An example of this is Tuvalu, an impoverished South Pacific island nation, which discovered it had a unique asset. Tuvalu's

internationally designated internet country domain is ".tv." Tuvalu has sold the rights to its domain name to a Canadian company that will market it to television and radio websites. This sale will earn the 10,000 Tuvalu islanders as much as $50 million over the next 5 years.

Investigating and Writing the Scenarios

A thorough investigation of the trends underlying the scenario plots is essential to writing credible scenarios. If scenarios are not based on significant quantitative data and a careful review of a country's political and cultural situation, the scenario process amounts to a brainstorming session. Writing the final scenarios should include a process of triangulation whereby the ideas and principles discussed in the workshops are investigated through original research and consultations with experts. Qualitative and quantitative research on relevant issues should be carried out before the scenarios are written. The former is based on interviews and follow-up questions with participants and key stakeholders identified in the scenario meetings. The latter includes economic projects, financial sustainability research, demographic studies, and statistical analysis.

Key research tasks follow:

- *Interview experts.* Speak with academics, sectoral and regional experts in the Bank, and other specialists on the best way to address technology, the political situation, social issues, and trade and economics. Interviewing is an excellent first step because interviews can be combined with the scenario team's requests for help in identifying the best way to quickly gain an understanding of a subject or the nation.
- *Assemble and disaggregate existing information.* These steps involve reading relevant stories in the local press, conducting quick literature reviews on key subjects, collecting best practice cases, and assembling quantitative information on the predictable and relevant forces in the scenario.

- *Synthesizing quantitative work.* Projections of trends for all of the key forces should be set up on a single chart. How do they interact in existing projects? Do they move together? How does this "official future" compare with that shown in the scenarios? Compare national, regional, and international trends along the driving forces. If possible, economic models for the predicted forces should be created and looked at for how they compare to past data.
- *Carrying out original qualitative work.* This may involve conducting stakeholder interviews to analyze the strength and importance of political or cultural tensions, working with local universities to create profiles of likely user groups, or other field work. Other tasks might include disaggregating household surveys, and analyzing the geographic distribution of the poor and best practice projects.

Writing Full-length Drafts of Each Scenario

Once the scenario plots have been sketched out by the whole scenario team in a workshop, they should be thoroughly researched and written up as full-length drafts. These drafts should be written by key decisionmakers, ideally the task manager and a highly placed government official in the client country. It is essential that the authors be present for the entire scenario discussion and have a clear stake in developing and implementing effective scenarios. *Decisionmakers will be asked to shape the strategy for a project or a nation using these scenarios, and the best way to ensure that they own, understand, and believe in them is to give them authorial control.*

A scenario should have a creative title that sums up its central message. It is best to begin the scenario with a brief summation that explains the title and sums up the elements of the story agreed in the workshop. The finished drafts of the scenarios should be smooth narratives that are easy to read and understand. Each scenario will be built around a series of specific events, but the underlying forces and their interactions also should be

made clear. This phase of writing involves interweaving the social, economic, political, and technological scenario drivers into a smoother whole.

The scenario in box 5 was created by a scenario team funded by the Colombian private sector and led by private consultants. It reflects the input of economists, politicians, academicians, military officials, guerilla leaders, church officials, and peasant and student leaders. It is a good example of a smooth narrative form for a complex story. It moves from economic events to political and social issues and explores the way that forces influence one another over time. The entire scenario is written in the first person plural (we) to immediately connect the reader to the events and decisions being described. It works chronologically, highlighting the impact of a failure of leadership along economic, political, and social lines as the country moves from bad to worse.

Using Scenarios to Make Strategic Decisions

The final task of the scenario team is to explore the relationships among the plausible futures they created and the strategic decision at hand. The strategic options presented by each scenario should be discussed in a workshop with the whole team present. This process enables decisionmakers to reap the full benefits of group involvement in the process. When looking at each scenario, the scenario team should take the following actions:

1. *Step into the narrative.* This involves re-reading the scenarios and questioning them a second time. The team is thereby able to re-engage intellectually and emotionally with the material. The team members should envision themselves in this future world and think about how the conditions that define it would change their professional and personal lives.

Box 5. Destino Colombia Scenario: "When the Sun Rises, We'll See"

Weariness, laziness or inability to face problems are all justified by the phrase "When the sun rises, we'll see." Darkness turns into a pretext for dreams and apathy, but the clear light of dawn, rather than inspiring important decisions, simply gives rise to a new period of uncertainty. In the face of the country's crisis, this irrational confidence in unexpected, miraculous outcomes, this recourse to halfway solutions, this generalized tendency to put off basic actions until later, have combined to the point of becoming a collective alternative. Before its enormous and rapidly growing problems, Colombia seems to be saying "When the sun rises, we'll see."

— Quote from the Destino Colombia scenarios

As crises repeatedly rock the country, exhaustion seeps into the government and the populace. Continual crises lead to a focus on solving problems day to day. The government wastes valuable time and energy negotiating without a strategy and is captured by pressure groups including the wealthy, various regional warlords, and corrupt officials. This "law of the strongest" leads to the extraction of the greatest costs from the most successful industries, the growth of the drug trade, the rise of regional governments with their own taxation systems, and the end of a national oil industry and economic independence.

As the situation deteriorates, the poor suffer the most. International organizations step in but are able to provide only stopgap solutions. Ultimately, increasing human rights violations and economic disorganization lead to the country's becoming economically and politically isolated. This isolation leads to military threats to the borders by neighboring countries and increasing levels of emigration. The scenario closes with the comment that the disintegration was slow enough that people simply "became numb to the proliferation of their misfortunes."

Source: Adapted from Kahane, 11-14.

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2. *What are the implications of this world?* Each scenario provides a different world for the intervention. This step involves a discussion of the implications of each scenario for the central strategic decisions that need to be made. A standard set of questions designed to apply to these decisions should be created for this phase of discussion and used for each scenario. A team might want to look at which ministries are most affected by each scenario or which geographic areas would experience the most change.

3. *What is the best strategy for this scenario?* Each scenario presents risks and opportunities. The team should focus on the broader strategic context and answer the following questions:

- *What is the best strategy for dealing with this situation?* The scenario team should look first at how the intervention can most effectively move toward its desired outcome in this future world. What general strategic position should be taken? Should it be one of intervention in certain areas, or restraint to allow the situation to run its course?
- *What are the major opportunities and threats in this scenario?* This may involve looking at how different sectors will be affected by the changes outlined in a scenario. It may also involve looking at the effects that different scenarios have on specific social groups, identifying the winners and losers in each story.
- *If we know this scenario will come to pass, the Bank/client should (name one action)? It should stop doing (name one action)?* These questions concretize the discussion by relating it to the specific set of actions that are being performed (or proposed) as part of the intervention. In addition, the scenario team should develop exit strategies for all or part of the intervention based on each scenario. What situations will trigger the abandonment of a project or set of projects?

By answering these questions, the scenario team has in effect developed a series of simple contingency plans for each potential future. The next phase of the process is to assess how much these strategies have in common with the current strategy of the Bank and the client. In the case of a specific loan, this encourages the scenario team members to look at how what they have learned about likely impacts on the intervention fits into the national development strategy.

When scenarios are designed to create a framework for a series of loans, it is more appropriate to compare the conclusions reached to the consensus about development in the country. This consensus can be identified through Country Assistance and/or Poverty Reduction Strategies as well as through comparisons with the national strategies of other donor agencies.

The team should look at the contingency plans suggested by the scenario team and identify:

1. *Which alternatives seem to be suggested by a majority or all of the scenarios?* These should be key parts of any strategic plan. They reflect an interaction of forces that is very relevant to the intervention and that the scenario team feels is likely to occur.

2. *Which alternatives challenge most strongly the assumptions underlying the current strategy?* The team should look to these alternatives for guidance in rethinking strategic orientation. Even if the scenario from which they are drawn does not come to pass, they highlight a blind spot in current plans. When making final strategic decisions, the scenario team should look for creative ways to include these insights in the intervention.

3. *Which alternatives are logical extensions of the current strategy?* These alternatives give decisionmakers an idea of how alternate future developments could be leveraged to push forward an agenda or program that is already in place.

Each alternative strategy presented by the scenario team should be carefully considered during the workshop. The final step in the exercise is deciding which strategic alternatives should be adopted. Again, a simple set of questions can serve as a guide:

1. *What events would trigger each strategy?* What impact (positive or negative) would those events have on the project? How effective is the strategy at addressing these issues?

2. *What is the evidence to support the assumptions* underlying the strategic suggestion? What aspect of the scenario serves as the underpinning of the strategy?

3. *Is it feasible for the organizations involved to execute the alternative?* What would prevent them from being able to do so?

Develop Monitorable Progress Indicators toward Each Scenario

Once each scenario has been tied to a set of strategic actions, the team must develop a way to look at what is happening in the country and the world to determine which scenario is coming to pass. The changes described in different plots (unified vs. disintegrated polities, outbreaks of ethnic violence) do not occur overnight. The scenario team should identify both indicators based on *fixed events* and indicators based on *trends*.

- *Fixed events.* Fixed events are pivotal incidents that push groups into conflict or create economic opportunity. They can be external or internal events and may be time-sensitive (elections) or ongoing external processes (currency fluctuations due to the collapse of markets in Asia). The group should identify at least four "turning points" for each scenario. Events such as oil prices reaching an all-time high or a 20 percent decline in tourism can serve as signs that the world is developing along the lines of the scenario. One way to identify such turning points is to invent newspaper headlines from the future that sum up crucial turning points or symbolic indications of the forces at work in the scenario. As these events occur, it is important to look at how their outcomes are related to the scenarios that have been created.
- *Trends.* Indicators of trends can include measurable changes in attitudes, demographic shifts (urbanization), and macroeco-

nomic changes. These indicators should be tracked throughout the life of the project and compared to the scenarios developed at its outset to determine progress toward a given future. Monitorable indicators can include (1) economic figures, such as export and growth levels; (2) demographic trends, such as rate of migration to geographic areas; and (3) employment trends, such as the number and type of jobs created in the formal sector.

- When choosing trends to monitor, scenario team members should look at where they can obtain data, how much it costs to produce that data, and how feasible it is to regularly track it. Another strategy is to look at how data that is already collected would be influenced by the driving forces of a scenario. By tracing the likely impact of a scenario on an already monitored set of demographic or poverty indicators, the team can ensure that the information will be recorded in a standardized and reliable way. Thinking about how each scenario would translate into migration, poverty rates, or other affected data helps make the world the scenario team describes more real.

Make It a Reality

The final stage of the scenario process is the dissemination of the message and its implementation on the ground. These two goals are fundamentally linked. One of the keys to successful implementation is giving the public and key stakeholders (especially those who will be carrying out the strategy) a good understanding of the lessons learned from the scenarios and the changes in policy that have been made as a result of them.

The basic steps are to:

Simplify scenarios and prepare them for dissemination. Reduce each scenario to a 1- to 2-page narrative that can be read or explained to an audience in 2 minutes. Use newspaper inserts, radio and television broadcasts, and videos shown during clinics and seminars to disseminate the scenarios. In Colombia, a video was made with various team members explaining their scenario with the aid of cartoons.

Develop support for the scenarios. Once the scenarios have been written, it is essential to involve larger groups of stakeholders to discuss them. During the dissemination period, the scenario team should build relationships with local politicians, influential figures, and important civil society organizations. The team can organize clinics and seminars for client country officials, local political leaders, and other figures and use handouts and videos to explain the scenarios and the strategy that resulted from them. It is important to monitor local and media responses to the scenarios and adjust for them in presentations and seminars.

Build accountability systems. The scenarios should lead to the definition of clear goals and pathways to alternate scenarios. It is important to involve the individuals who will generate the data in designing the implementation. The team should develop incentives and mandates for data collection and reporting. Responsibilities should be clear, and the relationship linking the data collected, the scenarios, and strategy should be explained. For example, insights from scenarios should be tied to the choice of baseline survey during the design phase and to the strategy for monitoring and evaluation during supervision.

Implement. Clarify the expected results of the intervention and define a clear strategy. Resolve residual conflicts between previous ways of doing business and the current system. Target priority areas for strategic resource allocation. Provide guidance and training (including a background on the scenarios) to all of the line managers who will implement the program.

Monitor progress and test results. Tie decisions about proceeding with the intervention to the indicators of progress toward certain scenarios. Scenario indicators should be a part of the Mid-Term Review process and should be examined during supervision missions to chart progress.

Re-examine environment and strategy. The scenario team should review for major problems, adjust objectives based on observed results, and revise time tables and priorities.

The team also should rethink scenario plots in light of new developments (ideal at Mid-Term Review) and adjust them so that they correspond to the most recent information.

Common Pitfalls in Developing Scenarios

Despite its usefulness, scenario analysis is not a panacea. Scenarios are a process, not a product. To become truly effective, they need to be used and refined over time. This requires sustained commitment on the part of high-level decisionmakers and a skilled and dedicated scenario team. It also requires the government to carefully develop and track indicators to help decisionmakers tie what is going on in the outside world to the scenarios.

Scenario development is not easy. The process demands significant effort, thought, and creativity of the scenario team. To help the scenario team avoid mistakes made by others, common pitfalls are listed below.

1. *Failure to gain the support of key decisionmakers.* To be credible, scenarios need to be integrated in the decisionmaking apparatus of the organization in which they will be implemented. Without real buy-in at the top, the scenarios will not be implemented.

2. *Unrealistic goals and expectations.* Scenarios do not produce action plans; they help decisionmakers envision what will happen. The methodology is not suited to addressing specific tactical issues. It is meant to provide a broad view of the uncertainties facing an intervention. Strategic decisions *flow from* this understanding, but they are not a direct product of the exercise.

3. *Failure to develop a clear map of the future with monitorable indicators.* It is essential that the team develop clear, monitorable milestones of progress toward the various scenarios. These milestones should have a direct relationship to the goals and planned outcomes of the intervention.

4. *Scenarios that are not credible*. Scenario workshops are not brainstorming sessions. Scenarios must be based on solid quantitative as well as qualitative projections if they are to be credible to

those implementing them. Because scenarios do not assign probabilities or project against current trends, it is important to make sure that they are based on strong research.

5. *Scenarios that are not tied to the planning process*. The indicators and thinking in scenarios must be directly built into the way that an intervention is planned. Scenario indicators should be closely monitored and associated with explicit changes in strategy, including exit strategies. Similarly, scenarios should be related to the client's and the Bank's budget and policy cycles.

6. *Not enough time to carry out the scenario process.* The process requires discipline and attention. It can be divided in two phases: *scenario building* and *relating scenarios to strategy*. Although these two phases may take place at separate times to conform with the Bank's project cycle and the client's policy cycle, the scenario team should have enough time to think through the logic of the scenarios and ensure that they are properly researched.

7. *Inappropriate time frame and scope*. Scenarios that focus on current crises and existing problem areas rather than looking at the interaction of broader forces do not generate the kind of new thinking necessary to jump-start an agenda.

8. *Mistaking projections for scenarios*. Projections are based on past data and often posit a continuation, or slight variation, of current trends. Projections are not well suited to dealing with the potential for significant discontinuities brought on by external events. Scenarios are designed to highlight "what if?" situations for decisionmakers. Scenarios should be built around the forces that shape society. Trends are symptoms of these forces rather than their cause. These unexpected changes cannot be predicted with a study of current trends.

9. *Failure to tell a dynamic, internally consistent story*. Scenarios should be movies, not still

frames. Each scenario should be a smooth narrative that makes intuitive sense to the reader. The main aspects of the future should be internally consistent; the outcomes postulated for the two key uncertainties should be able to coexist; and the actions of stakeholders should be compatible with their interests.

10. *Lack of diversity of inputs*. If the scenario team members are of homogeneous educational backgrounds and institutional affiliations, they will be much less likely to come up with innovative solutions. To build successful scenarios, the participation of a diverse group of people is essential.

Conclusion

If scenario development is carried out with commitment and purpose, it can be a powerful tool for improving development interventions. Scenarios are useful tools for task managers operating in environments in which long-term thinking, flexibility, and the inclusion of stakeholders in decisionmaking are needed. Scenarios bring insight to the potential futures in which an intervention will operate, what it will need to do to succeed in each future, and what needs to be done to make that success possible. By addressing rather than minimizing uncertainty, scenarios spur innovative and robust solutions. Because they are developed with a team of knowledgeable stakeholders, they are an effective way to gain buy-in for strategies. Furthermore, the research and discussion that accompanies scenario development promote collaborative learning by both World Bank staff and the client. Ideally, all members of the team walk away with a better understanding of the interactions among the country's social, economic, political, and technological forces.

Note

1. The steps that follow owe a significant debt to P. Schwartz, *The Art of the Long View*.

Appendix 1. Preparation

The first step in the scenario analysis process is for the task manager to define the intervention with a counterpart in the client government. The task manager decides how scenario analysis will be used in the project and works out a general plan to incorporate it in the project cycle. She or he then assembles the scenario team in consultation with the client government and local and international NGOs. Once the team is assembled, the task manager conducts a series of one-on-one, preliminary interviews to determine the team members' points of view regarding the intervention. These interviews can help the guide the organizers of the exercise in assembling useful background material before the first workshop.

Scenario Team

In the broadest sense, the scenario team is the group of leaders and experts who gather to create four or five distinct narratives about the future over the course of several workshops. Each of the members gives his or her time, energy, leadership experience, and technical expertise to the group for the duration of the workshops. Team members should be chosen based on their ability to represent distinct viewpoints on the issue being discussed, be it technical or political. Ideally, all also will be champions of the scenario process and generate support for its ideas among their colleagues and communities.

There is also a smaller group within the scenario team that plays an active role before, between, and after the series of workshops during which the scenarios are created. This smaller group, known as the *core scenario team*, should be led by key decisionmakers at the Bank and in the country. The finished scenarios need to be authored by, or in collaboration with, the people who will be asked to lead the implementation of the intervention. Other members of this smaller core team will conduct

preliminary interviews, analyze the country situation, and ground-truth the assumptions in each scenario.

Assembling the Scenario Team:
A Preliminary Checklist

Although it may not be possible to include multiple representatives from each group listed below, the best scenario teams are diverse. Below is a list of individuals likely be part of a scenario team:

1. *Decisionmakers*. The task manager and a senior representative from the borrower government should jointly lead the process and write the final scenarios.
2. *People with a thorough knowledge of the World Bank and its role in the country*. A representative from the Country Office or the task manager can fill this role.
3. *People with an understanding of the borrower government and its role in the sector/field (when appropriate)*. This includes senior staff at the appropriate ministry and officials who are interested in the scenario process and are active in the field.
4. *Experts and specialists*. This includes Bank, engineers/technical specialists, local academicians, and other relevant experts from other donor agencies or international NGOs.
5. *Line ministry staff and/or implementing NGOs*. These individuals will carry out the operation if it is an investment loan. In a strategy context, the net can be cast more broadly, but there is nonetheless a clear need for practitioners to give input on the realities of implementation.
6. *Leaders from the private sector and from trade unions*. In an investment loan, these representatives should come from the industry or field most closely related to the project. In a strategy context, a diverse group of dynamic businesspersons can be considered. It is important that

both local and international interests be represented when they will be equally affected by the intervention.

7. *Leaders from NGOs, activist groups, religious organizations, and beneficiary organizations.*

8. *Politicians.* Members of all relevant political parties should be included in strategy discussions. In Colombia, politicians included guerillas and revolutionaries.

Preliminary Interviews

Preliminary interviews engender comfort with the project in the participants, give the team a sense of individual styles, and help identify potentially explosive issues. It is essential that *all* participants in the scenario process be interviewed. This includes Bank staff and members of the client government. The key outcome of these interviews will be a better understanding of the mental models (the outlook and expectations) of each member of the scenario team.

Most interviews will take between one and two hours to conduct. Interviews can be conducted by Bank staff, members of the client government, or staff from an external agency or NGO that is running the process. The ideal interviewer would be a locally based individual or team with experience in facilitation and an understanding of the policies of both the client government and the Bank. Interviewers should be fluent in the language of those interviewed (interviews should not be conducted through an interpreter unless absolutely necessary) and be fully conversant with both the details of the project and the scenario process. Interviewers must establish trust and credibility with participants from the beginning. This can be accomplished by clearly explaining the goals of the process and highlighting the fact that the data collected will remain confidential.

Interview Questions

Interviews are meant to be conversations rather than formal surveys. The interviewer should participate in a reactive rather than active role, feeding back responses and asking questions to clarify what has been said. The challenge in this sort of interviewing is to remain unobtrusive and affect the interviewee's train of thought as little as possible. The following list of open-ended questions should help interviewers to move the conversation without directing it. All questions should be phrased so that they apply primarily to the organizations/situations with which the interviewee has the greatest interaction/association.

Clairvoyant: *If I could answer three questions about the future for you, what would they be?* This question helps interviewers identify the greatest sources of uncertainty while encouraging the interviewee to prioritize their concerns.

Good scenario: *Imagine that the future were very good, happening exactly as you would wish. How would you answer the three questions that you asked the clairvoyant? What would have to happen to cause this future?* This question encourages the interviewee to revisit the three uncertainties he/she introduced in his or her first question and resolve them while creating a story in which all the elements interact.

Bad scenario: *Imagine that the future developed along the worst possible lines. How would you answer the three questions you asked the clairvoyant in this case? What would have to happen to create this future?*

Lessons from the past: *What does (the country/ the government, your agency/NGO/the World Bank, the agency that provides you services/the sector or field) need to forget? What does it need to remember?*

Important decisions ahead: *What are one or two critical strategic decisions on the immediate horizon for your organization/group?*

Constraints in the system: *What are the obstacles to this process? To the "good scenario"?* This question should elicit strong responses and will be closely tied to the organization the interviewee knows best.

Epitaph: *What would you like to be remembered for having accomplished?* This very open-ended question allows for identification of the role of the organization and individual's goals and commitment.

Closure: *What should I have asked you that I didn't?*

Visual Clustering to Analyze Interview Results

Immediately after the interview, interviewers should sit down for at least 30 minutes to go through their notes to identify important observations to be processed further. A simple guideline for identifying key points is: "Is the view expressed relevant and significant in the context of the organization's relationship with beneficiaries and the external environment?" Issues that are related to internal processes of the organization should be included only insofar as they affect the way that the interviewee or organization will react to the outside world. Interviews normally yield from 40 to 60 statements. Each statement should be reduced to a single line.

In the next stage of analysis, the interviewer combines the statements from all of the interviews to create logical cause-and-effect chains of reasoning. At first, statements will seem like random, unconnected thoughts, but as interviewers read through them, patterns and connections should emerge. Clustering, or grouping these statements, serves three purposes: (1) it forces the analysts to pay attention to the conceptual meaning of what has been said; (2) it organizes the thoughts of a diverse group into more coherent stories; (3) it is an iterative process that promotes serial appraisal of the outlooks of each of the people interviewed. This technique is best suited to cluster comments from a set of 5 to 10 interviews. It is important to remember that with only 9 interviews, the core scenario team could be dealing with as many as 450 statements.

However, up to 25 persons can participate in a scenario exercise. The interviewer can simply take the statements from several related interviews and cluster them separately. Say, for example, there are 20 interviews, and 5 interviewees are from the Bank, 6 are from NGOs, 4 are from the client government, and the other 5 have no particular affiliation. The statements of NGO representatives could be clustered separately, as could those of the other related groups. Clustering enables the interviewer to work with a manageable number of statements. Each related group of interviewees will then yield a smaller number of "clustered" statements that synthesize the thinking of the

group. The final stage consists of using the "clustered" statements from each related group of interviews, which should not total more than 15 statements per group of interviews, as the basis for a last clustering to form a final, overall map of interview responses.

Visual Clustering Process

The core scenario team should write the statements from the interviews on adhesive notecards and place them on a display surface or a wall. Statements should be written in large, heavy characters so that they can be read from a distance and text should be limited to a few (at most 8) words. As team members read the statements, they should be able to note patterns emerging. The idea is to organize the separate comments into higher-level concepts that can be related to one another.

1. When clusters are finalized, team members should rephrase each one into a one-word statements that sum up the logic of the various statements brought together to form it. For example, a key internal constraint to educational planning is the lack of efficient disbursement mechanisms, which affects both teacher pay and procurement.

2. Statements that do not fit naturally into existing categories should be put aside and separate categories created for them later.

3. As the process progresses, team members begin to arrange the clusters hierarchically according to higher level concepts. For example, it may be possible to sum up 15 statements about disbursement in a cluster, which should then be organized under a larger cluster focusing on, say, internal budgetary issues.

At the end of the process, there should be five to six larger concepts and enough clusters to ensure that no cluster holds more than 15 or so statements. Statements should flow from simple clusters to larger ideas.
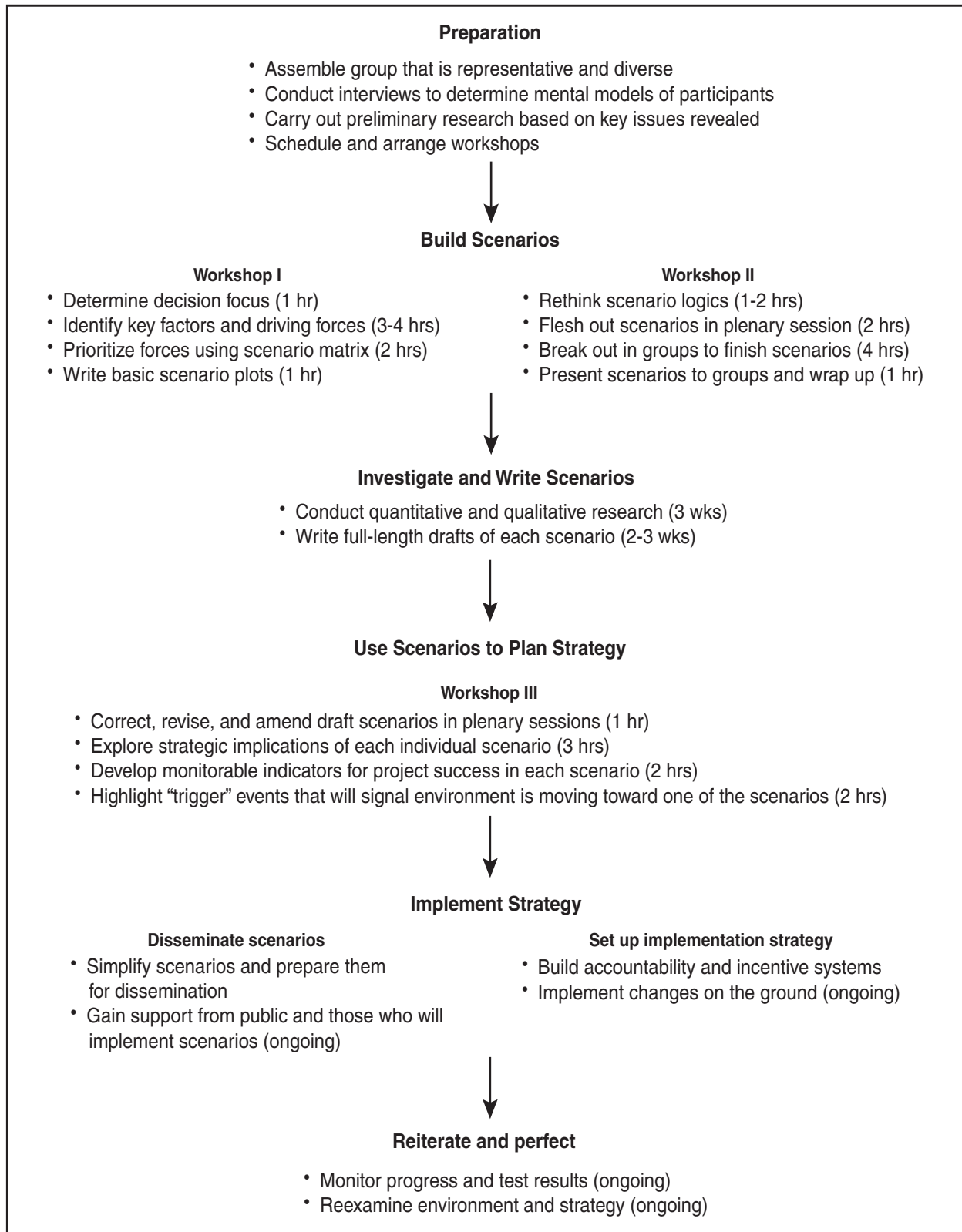
Assembling Background Information

The clustered results of the preliminary interview should give the core scenario team an

idea of the expertise of the group and the information that team members are likely to need to make informed judgments when building scenarios. If possible, the core team should draw together basic information on relevant issues and present it to the group as a packet. This background can help the group start off with the same basic reference points.

The collection of relevant information regarding these forces should focus on the country itself, its neighbors, trading partners, and (when appropriate) regional trends. The general areas for preliminary data gathering are:

- *Predictable, relevant forces.* This information might include short-term economic forecasts, relevant demographic data, household type

and composition, and population growth rates.

- *Unpredictable, relevant forces.* Unpredictable forces such as the price of oil, international investment flows, aid levels, and the sustainability of debt can significantly affect an intervention. Research into these topics is more involved. Industry and academic experts could be consulted, and historical trends affecting these forces could be assembled to aid comparisons with the current situation.

- *Sociopolitical information.* A focused analysis of the historical and political situation in the country as it relates to the intervention should be assembled for the benefit of outsiders. It could become the focus of a brief discussion during the workshop to enable people from the affected areas to add detail.

Appendix 2. A Roadmap to the Scenario Analysis Process

Preparation

- Assemble group that is representative and diverse
- Conduct interviews to determine mental models of participants
- Carry out preliminary research based on key issues revealed
- Schedule and arrange workshops

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Build Scenarios

Workshop I
- Determine decision focus (1 hr)
- Identify key factors and driving forces (3-4 hrs)
- Prioritize forces using scenario matrix (2 hrs)
- Write basic scenario plots (1 hr)

Workshop II
- Rethink scenario logics (1-2 hrs)
- Flesh out scenarios in plenary session (2 hrs)
- Break out in groups to finish scenarios (4 hrs)
- Present scenarios to groups and wrap up (1 hr)

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Investigate and Write Scenarios

- Conduct quantitative and qualitative research (3 wks)
- Write full-length drafts of each scenario (2-3 wks)

↓

Use Scenarios to Plan Strategy

Workshop III
- Correct, revise, and amend draft scenarios in plenary sessions (1 hr)
- Explore strategic implications of each individual scenario (3 hrs)
- Develop monitorable indicators for project success in each scenario (2 hrs)
- Highlight "trigger" events that will signal environment is moving toward one of the scenarios (2 hrs)

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Implement Strategy

Disseminate scenarios
- Simplify scenarios and prepare them for dissemination
- Gain support from public and those who will implement scenarios (ongoing)

Set up implementation strategy
- Build accountability and incentive systems
- Implement changes on the ground (ongoing)

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Reiterate and perfect

- Monitor progress and test results (ongoing)
- Reexamine environment and strategy (ongoing)

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