Research Toolkit for Program Evaluation and Needs Assessments Summary of Best Practices

Prepared for:
Michael Davis
Environmental Justice and Service Equity Division
Seattle Public Utilities
Local Hazardous Waste Management Program

Prepared by:
Elizabeth Moore, PhD
Andrew Gordon, PhD
October 2013
# Table of Contents

**Executive Summary** ................................................................. 1  
*How to use this document* ............................................................ 3  

**Background** .............................................................................. 10  
**General Issues** ........................................................................ 10  
*Selecting a method* .................................................................... 11  
*Types of data* .............................................................................. 13  
**Other General Considerations** .................................................. 15  
- The sample .............................................................................. 15  
- Community involvement......................................................... 16  
- The process ............................................................................ 16  
- Detecting, accepting, and respecting inevitable imperfections: .... 17  
- Public disclosure: ................................................................... 17  

**Detailed Descriptions of Methods** ............................................ 17  
*Low Impact Methods* ................................................................. 18  
*Observation* .............................................................................. 18  
*Individual file review* ................................................................ 23  
*Individual methods* .................................................................. 27  
*Surveys* ................................................................................... 27  
*Interviews* .............................................................................. 36  
*In Person Electronic Polling* ...................................................... 41  
*Group methods* ....................................................................... 45  
*Brainstorming* ....................................................................... 46  
*Traditional Focus Group* ........................................................... 46  
*Mutual Interviewing* ................................................................. 51  
*Nominal Group Technique* ....................................................... 56  
*Community Based Strategies* ................................................... 60  
*Asset-Based Community Development (ABCD)* ....................... 60  
*Matrix Ranking Tool* ................................................................. 61  

**References** ............................................................................... 63
Executive Summary
The City of Seattle’s Environmental Justice and Service Equity (EJSE) Division and the Local Hazardous Waste Management Program in King County (LHWMP) teamed up to create a project that would both gather information from local communities\(^1\) that City and LHWMP agencies wish to understand better, and provide a summary of research methods that City and LHWMP staff can reference when planning needs assessments and evaluations.

This report is that summary of research methods, and contains detailed descriptions of a sample of methods that can be used for needs assessment and/or evaluation, along with a summary of general issues that should be considered for any needs assessment or evaluation. The general issues include:

**The purpose of the research**: deciding whether the project is a needs assessment (to better understand a community’s needs and to plan a project) or an evaluation (including process, outcome, formative, summative, developmental, or goal-free evaluations).

**Selecting a method** requires consideration of the purpose of the research, the issue being focused upon in the project, and the current level of knowledge about the issue in its community context. If the questions tend to have limited and known response options, such as “how much, how many, or how often” “when” “where” or “which,” then a closed-ended quantitative method might work well. If the questions tend to be more exploratory, such as “why” “what” “how,” or the project is intended to explore complex or sensitive issues, or has another goal of building community engagement, an open-ended qualitative method might be better. Whenever possible, we recommend the use of multiple methods to increase confidence in the findings obtained in the research project.

**Types of data** covers the advantages and disadvantages of *quantitative data* (usually counts, ranking, true/false, closed-ended responses) and *qualitative data* (open-ended responses and other strategies that are not easily converted to numbers). Good quantitative questions have a narrow range of interpretation, in that they eliminating ambiguity so that the meaning of a response is clear and they must be meaningful to the community in which they are asked. Quantitative data can be collected more efficiently, potentially producing a large and relatively complete dataset that can be analyzed using straightforward statistical methods. However, if the questions or the response options are inappropriate for a specific community, closed-ended quantitative questions have little opportunity to reveal such a conceptual problem to the research team, potentially leading to "findings" that, unknown to the research team, are useless. Good qualitative questions have qualities that are almost opposite those of good quantitative questions. These must be open enough to avoid constraining or leading the response so that the interviewee can use the latitude to interpret and respond to the question in a relevant and if necessary, complex way. Open-ended questions permit new information to emerge and respondents feel more represented. The disadvantage of qualitative data is that it can be more difficult and time-consuming to collect so conclusions are often based on a smaller sample, and qualitative data is far more time-consuming to code, analyze, and report.

\(^1\) For a copy of the report, contact the LHWMP library at 206-263-3050.
**Sampling:** discusses the importance of a thoughtfully chosen sample that is representative of the target community, with the caution that an easily attained sample may not be representative of the general population and an unrepresentative sample can lead to inaccurate conclusions.

**Community involvement:** reminds the researchers to work with community partners to ensure that the project will be relevant and useful to the community as well as to the researchers. As a practical matter, without a community partner, it can be difficult for researchers from outside the community to access potential participants. More importantly, the community partner can improve the research project by honing questions, providing context, and crucial information about communication and relationships so to reduce the risk that as outsiders, the researchers will commit a grave social error offending the participant and compromising the project. Collaborating on a research project is also an effective way to strengthen relationships between the community, the research team, and the organization they represent.

The section on **the process** reminds researchers to:

- **be systematic** in whatever method they choose, striving for consistency in setting, approach, explanation, and questions for all implementations of the research
- **provide training** for team members and to be thoughtful in the selection and training of community members who will have pivotal roles in data collection, ensuring their ability to be successful
- **provide a friendly atmosphere** that communicates the researchers’ appreciation for the participation of the community members. People appreciate being offered a good meal. If that is not possible, find another way of conveying genuine appreciation.

**Imperfections:** we encourage researchers to accept that their research will inevitably fall short of the ideal and in response, recognize the impact of the shortcoming(s) on what they can learn from the research, and consider whether supplemental research is necessary.

The balance of the report describes a sample of methods in some detail. The methods fall into four different categories: **Low impact methods** (file review and scientific observation); **Individual methods** (surveys administered by paper, online, or telephone, semi-structured interviews, and electronic polling); **Group methods** (brainstorming, traditional focus group, mutual interviewing, and nominal group technique); and **Community Based Strategies** (Asset-Based Community Development and the Matrix Ranking Tool).

Each method is described in an overview and detailed in a “how-to guide” with considerations pertinent to that method, followed by examples, and advantages and disadvantages of the method. The “how-to guide” for surveys is considerably more involved because of the many different approaches to surveys. It includes sections on mode of administration, frequency of administration, survey elements, general considerations, question development, survey organization and layout, and sampling and response rate. Each “how-to guide” includes appropriate audience, ideal number of participants, staffing roles and requirements, level and type of skill needed, quality and complexity of data, generalizability of the data, how well participants like the method, the complexity of the process, and cost/time estimates.
Table 1 summarizes some aspects of the methods included in the full report. The name of the research category can be found in the first column to the left of the table and the name of the method appears in the second column. These are live links that will take the reader to the relevant part of the document. The categories are “Low impact methods,” (consisting of observation and individual file review,) “Individual methods,” (consisting of surveys, interviews, and electronic polling), “Group methods,” (consisting of brainstorming, traditional focus groups, mutual interviewing, and nominal group technique), and Community based strategies (consisting of ABCD, and the matrix ranking tool). The third column contains a description of each method, followed by a summary of for the method’s best use(s), and then participant considerations. The final two columns mention considerations of costs and time.

**How to use this document**

We have tried to make this document comprehensive enough so that it can serve as a guide to staff members planning to conduct a needs assessment or an evaluation. To get started with the part that is relevant to your research, read the section on general issues beginning on page 10, and consult Table 1 below to select the methods that might work best for your research needs, following the live links in first two columns.
Table 1. Summary description of methods

<table>
<thead>
<tr>
<th>Category</th>
<th>Method</th>
<th>Description</th>
<th>Good for...</th>
<th>Participant considerations</th>
<th>Cost²</th>
<th>Time with or by participant³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Impact Methods</td>
<td><strong>Observation</strong> (p. 18)</td>
<td>Guided, disciplined observation of community, events, activities, individuals</td>
<td>Needs assessment or evaluation: Initial exploration, hypothesis confirmation, understanding how issue is structured</td>
<td>Public, private with permission</td>
<td>Varies</td>
<td>Varies</td>
</tr>
<tr>
<td></td>
<td><strong>Individual file review</strong> (p.23)</td>
<td>Systematic data extraction from files maintained by community partner</td>
<td>Evaluation: tracking activities and outcomes, can identify barriers, produces analyzable dataset to understand pathway to different outcomes; reflects what is important to the organization</td>
<td>Ensure individual identity is protected. Can be a full file review or a sample. Sample is adequate for monitoring, evaluation may need full.</td>
<td>Staff time</td>
<td>Depends on design</td>
</tr>
</tbody>
</table>

² Total project cost must also consider the cost of a consultant to support the staff research team, or to implement the research project, as well as the cost of the time to collate, code, analyze and report data.
³ Time planning, collating data, data analysis and reporting are additional.
<table>
<thead>
<tr>
<th>Cate-</th>
<th>Method</th>
<th>Description</th>
<th>Good for...</th>
<th>Participant considerations</th>
<th>Cost¹</th>
<th>Time with or by participant²</th>
</tr>
</thead>
<tbody>
<tr>
<td>gory</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual methods</td>
<td>Surveys</td>
<td>Using a predefined set of questions with pre-coded answers. Can be administered by mail, online, through a community partner, directly by hand at community locations, by telephone interview, or in person with an interviewer at any location</td>
<td>Later stages of needs assessment: Depending on implementation, provides a better sense of community perspectives IF the questions and pre-codes are relevant. Also useful for evaluation, especially if a survey can be conducted early to establish a baseline and later to assess the impact of the intervention.</td>
<td>Must be in a language the respondent knows. Literacy is required for written surveys, but not for verbally administered surveys. Participants must be randomly selected and effort must be made to get a good response rate for confident generalizability. It may be necessary to consult with a statistician to determine sample size. 20 may be enough; 1000 may be needed. The goal is to collect enough so that any additional are very unlikely to affect the conclusions. Confidence interval tables show the range around the population estimate depending on the number of surveys</td>
<td>Depends on administration method. For mail surveys, cost variables are postage and data entry, for personal administration, each completed survey adds to the cost.</td>
<td>15-25 minutes for community member; can be months for researcher</td>
</tr>
<tr>
<td></td>
<td>Interviews</td>
<td>Semi-structured process that uses a question guide, the interviewer provides little input, and permits interviewee much latitude in directing interview. Group interviews, sometimes preferred by interviewees, work if the group is cohesive and relatively unburdened by power dynamics.</td>
<td>Needs assessment or evaluation. This is mostly used to understand how an issue works in a community, or to get in depth and thoughtful information, especially about complex or sensitive topics</td>
<td>Must be conducted in a language the respondent knows. Continue interviewing community members until little or no new information about the topic emerges. If the population is vulnerable, consider making support available. Research costs can be controlled by controlling the number of interviews, but fewer interviews will produce less confidence in the results</td>
<td>Each interview will probably be expensive, as will its coding and analysis.</td>
<td>60-90 minutes per interview. Much longer to code, analyze, and report results.</td>
</tr>
<tr>
<td>Category</td>
<td>Method</td>
<td>Description</td>
<td>Good for…</td>
<td>Participant considerations</td>
<td>Cost²</td>
<td>Time with or by participant³</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>-------------</td>
<td>------------</td>
<td>-----------------------------</td>
<td>-------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>-------------</td>
<td>------------</td>
<td>-----------------------------</td>
<td>-------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td></td>
<td>In Person Electronic Polling (p.41)</td>
<td>Each participant has a “clicker” device that they use to respond to pre-programmed questions, usually in the context of a larger meeting or training. Results can be displayed in real time. Data are stored by device number.</td>
<td>Needs assessment, evaluation of an event, obtaining a community perspective in a group setting. Questions must be simple.</td>
<td>Participants must be able to see and operate a simple electronic device with training. Participants must speak the same language unless translator headsets are used. The number of participants is limited only by the venue and the number of devices. More participants yields more confidence in the results. Attention must be paid to selection of participants to ensure results can be generalized to non-participants.</td>
<td>After initial cost of equipment, cost of data collection is low</td>
<td>After initial investment in learning to use the tool, time required to use it is low</td>
</tr>
<tr>
<td>Group methods</td>
<td>Brainstorming (p.46)</td>
<td>Participants offer diverse responses to a question in a criticism-free setting.</td>
<td>Idea generation, problem solving. This method is subject to domination by some individuals while others withdraw</td>
<td>Need 4-13 participants, should be of similar status (not bosses and workers, in some cultures not men and women, not children and parents). Participants must speak the same language to participate easily.</td>
<td>Low</td>
<td>An hour to collect the data; time to code, analyze, and report can be extensive</td>
</tr>
<tr>
<td>Category</td>
<td>Method</td>
<td>Description</td>
<td>Good for...</td>
<td>Participant considerations</td>
<td>Cost²</td>
<td>Time with or by participant³</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td></td>
<td>Traditional Focus Group</td>
<td>Participants respond to question probes presented by the facilitator and to one another. In a well-run focus group, many aspects of an issue can be explored and differences of opinion can be highlighted. Focus groups need a trained facilitator to run the group.</td>
<td>Needs assessment, evaluation. A focus group permits in depth discussion but the time is shared by many, so depth is limited. Focus groups allow participants to challenge one another’s view, something that is valuable and very difficult to do in an interview setting.</td>
<td>Need 4-13 participants of similar status. They must speak the same language to participate easily and it is best but not mandatory if the facilitator also speaks the same language. Try to avoid “experts” who can dominate the process, influence responses, and intimidate other participants. It is important to conduct at least two focus groups per subgroup of interest.</td>
<td>High if payment is expected by participants. Because each focus group is considered one respondent, the cost per &quot;respondent&quot; is high. Cost of facilitator or facilitation training for staff varies.</td>
<td>About 90 minutes for the focus group itself. Time to code, analysis, and report is much longer</td>
</tr>
<tr>
<td></td>
<td>Mutual Interviewing</td>
<td>Participants are divided into 4 equal groups and are directed to interview one another using provided interview guides and a set pattern for finding interview partners from other groups. Each group analyzes and summarizes their findings. Mutual interviewing groups need a trained facilitator to plan and support the process.</td>
<td>Needs assessment, can be used for evaluation. Excellent for overcoming language and other barriers as communication is between peers, one-on-one. Everyone is forced to participate. Engagement is usually strong. Good for community building.</td>
<td>Need 8-28 participants, preferring 12-24. Participants must be able to communicate with each other; facilitator must be able to communicate with participants. It is helpful if participants can read and write. If they cannot, they must be able to remember and repeat their group’s question and their interviewees’ responses (and an assistant must be available to record responses.)</td>
<td>Same issues apply as traditional focus group.</td>
<td>Similar to traditional focus group.</td>
</tr>
<tr>
<td>Category</td>
<td>Method</td>
<td>Description</td>
<td>Good for...</td>
<td>Participant considerations</td>
<td>Cost²</td>
<td>Time with or by participant³</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>-------------</td>
<td>-------------</td>
<td>---------------------------</td>
<td>-------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td>Nominal Group Technique (NGT) (p 56)</td>
<td>Time is divided between independently writing as many ideas as possible in response to the researcher’s probe question, taking turns reading responses for the scribe (and stimulating further ideas among other participants), and as a group activity, prioritizing the ideas.</td>
<td>Needs assessment and evaluation, depending on the probe question. Permits individual thinking opportunity, and the benefits of group creativity. Encourages participation and reduces dominance by a few. Data can be the prioritized list, the participants’ notes, and the notes of the ensuing discussion.</td>
<td>Needs 4-13 participants. If more are present, break into two groups and conduct two separate NGT activities. Recruit a facilitator/scribe from within the group. It is easiest if participants can write, but accommodations can be made for those who can’t. The facilitator/scribe and the participants should speak the same language. The probe questions should be in the group’s language. Good bilingual facilitators/scribes are often recruited from the group and given a brief training</td>
<td>Same as other group methods</td>
<td>Same as other group methods</td>
</tr>
<tr>
<td>Community Based Strategies</td>
<td>Asset-Based Community Development (ABCD) (p 60)</td>
<td>Community members use provided cards (or make their own) to recognize and describe the strengths and abilities of their community to meet their community’s needs and which needs require support from beyond the community.</td>
<td>Needs assessment, community engagement and empowerment, and problem solving (though this method’s focus is explicitly NOT on community problems or problem solving). Useful for exploring the relationship between community and government and between the community and itself.</td>
<td>No particular upper or lower limit – community members work in groups of about 10 each to identify things that need to be done in the community, and community assets to do those things. Participants should share a common language. The cards have been translated into languages in addition to English. People find this activity engaging.</td>
<td>Low</td>
<td>Varies – from 30 minutes to hours.</td>
</tr>
<tr>
<td>Category</td>
<td>Method</td>
<td>Description</td>
<td>Good for...</td>
<td>Participant considerations</td>
<td>Cost²</td>
<td>Time with or by participant³</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Matrix Ranking Tool</td>
<td>(p 61)</td>
<td>Start with community challenges. Group members generate solutions to the challenges, and determine whether those solutions are within the community’s ability, requires the support of government, or is best managed jointly.</td>
<td>Needs assessment, problem solving, and community engagement/empowerment. Can change the relationship between communities and government, and can change a community’s attitude toward itself. Can prepare residents to participate in town meetings.</td>
<td>No particular limit on group size. Participants self-select into groups of 5-10, based on interest in the set of challenges. More participants mean that more challenge areas can be addressed. Participants should share a common language, at least within the small groups.</td>
<td>Low</td>
<td>Varies</td>
</tr>
</tbody>
</table>
Background
The City of Seattle’s Environmental Justice and Service Equity (EJSE) Division and the Local Hazardous Waste Management Program in King County (LHWMP) teamed up to create a project that would both gather information from local communities that City and LHWMP agencies wish to understand better, and provide a toolkit of research methods that City and LHWMP staff can reference when planning needs assessments and evaluations.

The City contracted with Applied Inference, a local small business specialist in research and program evaluation, to provide these services. This report is the toolkit portion of the project. It is divided into five sections:

1. **General issues** which includes considerations that are relevant across the methods below.

2. Data collection methods that are **low impact or unobtrusive** from the perspective of community members, including (a) observation of individuals, groups, settings or events, and (b) review of existing files.

3. **Individual methods** in which participants are asked to provide information *individually* through the use of surveys (administered in various ways), interviews, and electronic polling.

4. **Group methods** where participants are gathered together and asked to provide information as a group, with the goal of bringing out diverse perspectives and creative ideas, through brainstorming, traditional focus groups, nominal group technique, or mutual interviewing.

5. **Community-based engagement methods** where community members work together to identify community strengths and to address community challenges.

General Issues
The methods introduced in this report can be used for the purpose of program evaluation or needs assessments. They are all approaches to help the researcher:

- Better understand a complex issue, exploring varied perspectives, and getting a sense of how individuals and communities as a whole perceive an issue.
- Better understand communities or subgroups, including their strengths and weaknesses (real and perceived), values, norms, practices, concerns, needs, and barriers to communication and participation.
- Collect information to determine project planning priorities and strategies.
- Strengthen communities, build community capacity and strengthen partnerships and relationships.
- Develop effective solutions to community problems, and more generally empower communities.
- Track progress and impacts (intended and unintended) of projects, trainings, or workshops.
Evaluations focus on an existing project, program, or intervention. There are several types of evaluations. These are some of the most prominent, with the questions they emphasize:

- **Process evaluation**: During the initial or start-up phase - Is the project or intervention progressing as planned? Is it on track for achieving its goals? Are the stakeholders engaged? Is the program being implemented as planned?
- **Formative evaluation**: During ongoing implementation - How is it going? What barriers to success or gaps in service have emerged? What is going particularly well? Is the project working so far? Are the expected outcomes accumulating? Are mid-course corrections needed? Are there any unexpected outcomes, good or bad? What is being learned?
- **Summative evaluation**: Toward or at the end of the project - Did it work? Was it worthwhile? What changes were made during project implementation? What was learned? What were the lasting consequences, whether unintended or not? What is next?

Two additional and newer approaches to evaluation deserve mention as they may be a more useful approach when developing a new program.

- **Developmental evaluation**: An approach to evaluation when the program is innovative and the issue it addresses is complex and embedded in a dynamic system. Developmental evaluation is particularly useful when the goals are more exploratory, the targets are not stable, and the process is responsive. In these cases, the focus of traditional evaluation on program fidelity, project achievements, and the links between activities and outcomes may interfere with understanding why an innovation was (or wasn’t) successful, or with success itself.
- **Goal-free evaluation**: An approach to evaluation that attempts to disregard the described goals of the project or intervention and instead to focus on actual effects that can be detected in the context of the needs that the project was created to address.

Needs assessments focus on better understanding the community and how to prioritize existing gaps to be addressed. Needs assessments can be general, asking community members or community key informants to reflect on the overall functioning of the community, or specific, asking community members to respond to the needs in a specific aspect of community functioning. A needs assessment often precedes the development of a community program – in fact, it often justifies such a program – and can be an important prior step when planning the evaluation of a program that arises in response to a needs assessment. Recognizing that it is very unlikely that any program will fully address the complex needs of a community, one goal of an evaluation often is to discover to what extent a program was successful in addressing the need(s) that motivated it.

**Selecting a method**
First, it is important to clarify a) **the purpose** of the research: is it a needs assessment to begin a new project, for example, or an evaluation to assess an existing project? and b) **the research’s starting point**. For example,
• If the research topic in the target community represents new territory for the project team, or if they are asking questions like “why?” “what?” or “how?” or are just not sure they are asking the correct questions or considering the correct range of answers, they should lean toward more open-ended methods, like observation, semi-structured interviews, and focus groups. These methods are more typical of needs assessments, though they are also very useful for evaluation. Using these methods the researchers will hear about issues in much greater depth and get a much better idea of the issue in its community context - but this information will come from fewer people. The findings will have the benefit of being relevant to the community, but they may not be comprehensive or fully representative of the community. This is one of the reasons it is important to conduct more than one focus group, interview, or episode of observation.

These approaches can provide more insight and understanding of how issues function in the community, and can help with the development of a well-informed, broader-based research agenda.

  o If the research goal is to explore complex or sensitive issues, semi-structured interviews are often best.
  o If the research goal is more creative, such as to build community, inspire action, develop new ideas, then a group method may be best. When well-facilitated, groups can develop ideas that individuals are less likely to develop independently.
  o If the research goal is to fill in gaps left after another method has already been applied (such as to hear from groups that were not included in the other method, or to gain a better understanding of puzzling subgroup results) then it is best to take the research questions to the community. Depending on factors that should be carefully worked through, this step may call for something as straightforward as translation of the initial method, or for a more tailored individual or group approach, usually best accomplished with the support of a community partner.

• If the research team already has a fair understanding of the topic in the target community and is ready to ask more specific questions like “how much, how many or how often?” “when?” “where?” or “which?” then a survey might be best. This approach can give a better assessment of community norms from more people. But it is difficult to get in depth or nuanced information from a survey.

  o If the research must represent community views, a survey can be a very useful tool.
  o If the research must produce quantitative results, a survey can be the most effective way of gathering the needed data.
  o If the question is which decision the community will prefer, consider a broad-based survey.

• The research team needs realistically to assess its capacity for managing and analyzing different types of data. Quantitative analysis can be simple or complex; qualitative analysis can be superficial (relying on quick impressions to capture only highlights) or in-depth and thorough
(revealing nuances that are often fundamental to understanding and responding to community dynamics).

- Often it is beneficial to use more than one method in a research project – an approach often called “multiple methods” or “mixed methods.” This strategy is typically deployed in recognition of the fact that every method, including those described briefly above, has strengths and weaknesses. It is so common for the validity of the information one obtains to be confused with the impact of any method one is utilizing (“methods artifacts”) that where possible we strongly recommend deploying more than one method in a community assessment. The more different the methods are from one another, the greater the integrity of the information they are likely to yield. In particular, combining quantitative methods with qualitative methods (see below), each rigorously deployed, enhances the opportunity for more effectively capturing the information sought.

Types of data
This overview of methods includes techniques that produce different types of data or outcomes: sometimes counts; sometimes transcripts; sometimes action plans or priority lists for future action; even sometimes new or revitalized relationships. Research methods are often categorized as “quantitative” or “qualitative,” though both quantitative and qualitative data can be collected from most methods.

**Quantitative data** refers to numeric information, such as age, years of education, or level of agreement on a scale from 1 to 5. “Quantitative” also refers to data that are closed-ended or pre-coded, such as sex, marital status, type of housing (single family, duplex, apartment, etc.), or favorite grocery store (QFC, Trader Joe’s, Whole Foods, Safeway). This type of data is often collected using a survey (whether administered verbally in an interview format, online, or on paper either individually or in a group) or through electronic polling.

Closed-ended methods have many advantages.

- The researcher gets answers to the questions in a consistent way.
- The process of developing questions often leads to fruitful discussions about the purpose of the research itself.
- The resulting dataset is relatively complete in that respondents have been asked to respond to all relevant items.
- The specific data elements are developed in response to requests through a vetting process.
- Analysis is relatively straightforward, and can be simple or can address sophisticated, multi-layered questions. Results can often be summarized and populations and subgroups described and compared with percentages or average values.
- If the sample is appropriate, the results can be generalized to other community members.

Closed-ended methods also have some disadvantages, many of which can be resolved or at least minimized by pilot testing all parts of the assessment.
The questions may be wrong: the questions developed by the researcher may not be relevant to a community, and other questions related to the same topic may be more appropriate, but are unknown to the researcher. Often there will be no indication of this flaw when the data are gathered. If the questions are being asked in an interview format, a perceptive interviewer will often discover this kind of problem when the participant comments on, or balks at answering, the questions. Pilot testing a survey with a follow up request for feedback from community members knowledgeable in or at least interested in the topic area can address this challenge.

The answers may be wrong: the questions’ response categories may not resonate with the community. An “other” option with “please specify” helps to overcome this problem, but it can be misleading to interpret those responses as a higher level of engagement and commitment is required of participants to produce an “other” response. Once the data are collected and aggregated, it is often difficult to perceive that some respondents understood the questions, while others did not. Again, this can be addressed by pilot testing with follow up feedback.

Respondents may not understand the questions and response categories as the researchers intended them, making it difficult to understand results. This flaw is sometimes detectible during careful analysis if responses for a particular question item are inconsistent with other responses. If the questions are being asked in an interview format, this problem can sometimes be overcome by discussion with the interviewer. However, that requires the interviewer to have a thorough understanding of the question, and if there is more than one interviewer, their understandings are consistent. Again, this can be addressed by pilot testing with follow up feedback.

Because the numerical information is so easily summarized and aggregated, data may seem more relevant, or comparable across subgroups, than it actually is.

Qualitative data refers to responses to open-ended questions where the responses are not pre-defined. This can be as limited as the “please specify” request when a respondent chooses the “other” option in a multiple choice question on a survey, or as expansive as the question, “What is your vision for the future of our city?” Open-ended questions can be asked using a variety of methods, but are most often asked in interactive settings, such as individual or group interviews, or some type of focus group. Open-ended methods have many advantages.

- The participant has the opportunity to provide a context for her response, to help the researcher understand the meaning of the answer.
- It can accommodate complexity of ideas.
- It permits completely new information to emerge, especially if the questions are sufficiently open, such as with a goal-free approach.
- The respondent often feels more faithfully represented in the process.

Open-ended methods also have some disadvantages.

- Coding and analysis are time-consuming and complex, but without coding and analyzing the comments, it can be difficult to interpret and report accurately and without bias.
• The researcher has much less control over the responses and may end up with a very different set of information than anticipated. Whether this is a “problem” or “benefit” of the method often depends on how the information is utilized.

• Even if open-ended questions are more interesting and more relevant to participants than closed-ended questions, they are also likely to be more difficult to answer and therefore, may impose more of a burden on the participant. That is a disadvantage if the participant is not engaged in the process.

Other General Considerations

Other important issues to keep in mind while crafting the methodological approach include:

• **The sample:** This step is fundamental to achieving meaningful results. An important early step in any research project using any method is to specify your “target group” – those about whom you wish your results to be relevant (e.g., the elderly, new immigrants, all Seattle residents, homeless youth). A common problem in community research is to accept an “easily obtained” sample (e.g., a pre-existing group) as a proxy for those one hopes to represent. But it is very important to consider the ways in which an “easily obtained” sample may be different from others in the community, and whether the responses of that sample may fail to capture the range of relevant community perspectives on the research topic. Often researchers think that a sufficiently large number of respondents will make up for any sampling problem, but if the sample is wildly unrepresentative, large numbers will not help. It is better to have a small, representative sample than a large, unrepresentative one.

Carefully consider the demands the chosen method will make on the participants. Some methods require the ability to read and write; some methods require participants to be comfortable with one another; some require participants to be comfortable moving around; some require participants to be able to understand and interact with each other. If researchers are prepared in advance, accommodations can often be made in response to these issues.

One approach to sampling that deserves special mention is called “snowball sampling.” This approach is usually applied to interviews and starts with key informants or other community representatives. As part of the interview, they are asked to suggest other community members that should be included in the research project. This approach will usually lead to responses that are relevant to the community, but tends to favor the community’s strongest voices, and best known and most well developed perspectives, and is more likely to miss some of the less well-known but perhaps well-informed and important perspectives, especially if they differ from the referring informant. Both types are important to gather. Another approach to this informant-based system of sampling is "chain referral." It was initially developed to adequately gather information about sensitive topics or any topics from populations that researchers have difficulty gaining information from. This sampling method differs from snowball sampling in three important ways: 1) the initial set of refererrs are community "gatekeepers" who are engaged in the research project and asked to invite community members meeting clear and pre-
established criteria to participate in the research project. Thus the gatekeepers serve as intermediaries, protecting the status and identity of potential participants who initiate contact with the researchers if they wish to participate. In subsequent stages of referral, research participants are recruited to serve as locators, serving the same recruitment function as the initial gatekeepers; 2) the initial selection of gatekeepers is strategically planned to gather information from a diverse and representative range of community members; and 3) this process results in a broadening and lengthening pipeline of participants. Careful tracking coupled with judicious pacing of each stream of participants can result in relatively precise fulfillment of a sampling plan, assuming an adequate array of initial gatekeepers or the introduction of other populations through later stage referrals. (See Penrod et al.)

- **Community involvement**: Strong community support can prove invaluable at each stage of the assessment effort. Community assessments, often for good reason, are sometimes seen as more invasive than helpful, and more to be resisted than cooperated with, especially if this is a frequent request with no return to the community. It is important to ask at every stage what kind of community support the project has, and how to enhance that support in mutually beneficial ways. Working with individuals and organizations who are perceived as trusted gatekeepers can be invaluable, as can working in ways that benefit the local community (e.g., if you’re going to buy coffee, try to buy it from a local vendor. If you’re going to buy food instead of making it, buy it from a local restaurant. Consider the inclinations of the community).
  - Don’t underestimate a community’s ability. Recognize the impact of your data collection process on your ongoing relationship with the community. Repeatedly assess how well you know the community.
    - What level of involvement is the community ready for?
    - How open is the community to you or other staff from the City/County?
    - What is the community’s experience with the organization you represent and other organizations?
    - What is the community’s experience with other similar projects?
  - Consider the needs and aspirations of the community members you will recruit for data gathering. For example, is translation appropriate? Can you expect participants to be able to read and write in your language or theirs? Will they need accommodations appropriate to their age and circumstances? (e.g., will they need childcare, or do they have restrictions related to food and beverages?) What is an appropriate way to thank them for their time that fits with your budget and other agency restrictions?

- **The process**:
  - **Be systematic**: Whatever the method(s) selected, strive to proceed sensibly and systematically (similar setting, explanation, approach, question list for all participants). When the research is conducted systematically, it is less likely that any effects detected are due to differences in the implementation of the research itself.
  - **Provide training**: Good data collection is not as easy as it may seem and different aspects of the process call for different abilities. Make sure those working on the project are well-suited and well-prepared for their roles. If community members are working on
data collection or group facilitation, be sure they will be successful. This is particularly important if a goal of the project is to increase these skills in the community. If they are not successful, the consequences may be more serious than compromised research results.

- **Provide atmosphere:** For group methods, consider yourself a host and recognize the participants bringing you something valuable. Help them feel welcome and appreciated. Provide a comfortable atmosphere. We believe strongly in providing food as preparing and sharing food is a way of welcoming and thanking people that is common to many cultures (including ours!) It is a practice that renders the researchers slightly vulnerable, somewhat reducing the power difference between the researchers and the participants. It helps create rapport among participants as they eat together, and between participants and researcher as they can easily chat about food and cooking for the first few minutes of the gathering, connecting on a human level.

- **Detecting, accepting, and respecting inevitable imperfections:** No matter how carefully you go about your work, it is nearly inevitable that your methods, as implemented at the community level, and the sample of respondents available to you, will fall short of the ideal described here or in methodology textbooks. It is important not to throw up your hands when that happens and declare your data useless, but it is equally important to think as objectively as you can about the consequences of any difficulties that may have arisen. For example, if you intended to survey representatives of an entire community but only the elderly show up, be sure to take that into account in the analysis and conclusions. Perhaps supplement that information with data collected from youth and other subgroups. (The attendance pattern itself may reveal aspects of community dynamics to consider in fashioning a community program.) If the “intervention” is targeted to less literate groups but your data reveal that only very literate people felt comfortable answering your questions, a revision of the research or data collection strategy may be called for.

- **Public disclosure:** remain aware that because any data collected by the City or County is subject to public disclosure by any requester, it is important to be thoughtful and careful about collecting specific identifying information about respondents or confidential business information because if requested, that information could become public. This is an important consideration in project planning. For one project, strategies were used to assure that no records with identifying information (such as business name or address) were transferred to the government agency. The City and LHWMP agencies should consult their internal public disclosure experts for guidance before collecting data.

**Detailed Descriptions of Methods**

The rest of this report is devoted to descriptions of the sample of research methods covered here. Table 1 lists the methods and summarizes various aspects of each method.
**Low Impact Methods**

Many evaluation methods ask people in the community to do something extra, like fill out a survey, participate in a focus group, or in some other way, respond to an evaluation or research question. This section covers two methods (direct observation and file review) that ask no more of the people in the community than to accept the presence of a researcher. **File review** is usually conducted in partnership with the community organization that has collected the information, and without the awareness of the people in the community.

**Scientific observation** ranges from brief site visits to extensive ethnographic studies. Though the burden on the community of this type of research is minimal, the observer-researcher must not only develop relationships in the community to promote her acceptance, but also simultaneously make and record careful observations according to the research plan.

**Observation**

**Overview**

The goal of observation is to try to understand the culture, group, or behavior from the perspective of people who are part of that group. People often have difficulty answering questions about their behavior or beliefs, especially when it comes to more subtle aspects of culture. Observational techniques (sometimes referred to as *field work*) permit the researcher to observe the behaviors directly. For our purposes, *observation* refers to spending time in the “real world” setting where information is being gathered and writing down observations. Its most salient feature is getting to know the people in the context in which the relevant behavior (e.g., recycling, hazardous waste handling) is taking place, as unimpeded as possible by the constraints associated with our more structured methods of data gathering.

Ethnography, the most highly developed form of observation, is a scientific method of anthropology, in which ethnographers would spend months, even years, living among the people they wished to understand. As typically applied in “field research” by evaluators, useful observation requires the researcher to carefully record observations made after spending at least enough time in the field for community members to be comfortable with her presence, and to behave to the extent possible as they would if she weren’t there. (In practice, as a supplement to more structured methods, it is remarkable how useful the information gathered during a very short period of well-executed field work can be. Further, the data produced through observation is actual behavior, rather than a self-reported description of behavior.)

Recording devices are often used by field workers (audio or video) in order to capture the setting fully. If so, the devices should be used judiciously (protecting identities when appropriate), and must not become crutches that substitute for careful observation and recollection.

**Subtypes to consider**

*Hypothesis-related fieldwork*: Sometimes a researcher engages in field work in order to develop, test, and refine an emerging hypothesis, or to help to specify the conditions under which a hypothesis is true. This flavor of field work is often referred to as “Grounded Theory” (see Glaser and Strauss, 1967) in
which, for example, one does field work in situations where a behavior is expected (e.g., substances considered hazardous are freely utilized in some communities) in order to see whether this “hypothesis” is true, and under what conditions – leading to a refinement of one’s hypothesis. Sometimes this is done as the core research method; often it is used as a supplement to more structured methods.

**Goal-free observation:** A more radical version of work in this domain is to enter the field as free of preconceptions as possible to overcome the possibility that hypotheses themselves may blind one to observing fully the realities one is hoping to understand. So, for example, one’s field work might persuade the observer that recycling is more likely to occur under some conditions than others, while a goal-free evaluator might perceive that recycling *under any conditions* is unlikely in a community where poverty and illiteracy dominate one’s daily concerns. Goal-free observation sometimes precedes hypothesis-related fieldwork, providing the list of key behaviors to be observed. Another approach suggested by a member of the review team is to simply supply the field researcher with the list of interviewees and a data collection tool, but not the goals or aims of the project. In this way, the biases or expectations can be more controlled.

**How-to Guide**

Some issues to consider in the observation process are:

- Start “easy” if possible. “Hang out” for a while rather than barging right in with your agenda.
- Develop an observation guide. Depending on the goals of the research, it can be very open or more structured as a "rubric" that guides the observer and standardizes data collection.
  - Identify the target of the observation: is it the behavior of people? The presence or absence of an event or process? The activities within a setting?
  - Plan the level of observation: is it the behavior of individuals? In pairs or other small groups? Larger community subgroups? An entire region?
    - If it’s a community, you may walk around, make a map, go to markets and temples.
    - If it’s a neighborhood, you may observe the types of buildings, note where the walls are and how they are used.
- Identify the values or biases you, as an observer, bring to the observations
- Consider the different advantages of being strictly an observer vs. being a participant and joining in the activities of the culture. When working strictly as an observer, it is more possible to maintain the perspective of an outsider, and it is easier to continue to view behavior and activities apart from the meaning given to them by the participants. When acting as a participant-observer, the task is more challenging because the participant-observer has two tasks: 1) participating with the community, and 2) observing it. In this way, he is more able than the strict observer to understand the activity from the perspective of the community member, but at the same time must reserve some mental “space” for detached observation. As a participant, the researcher can be more aware of what goes on in an activity and can provide a broad spectrum of information with less information filtered out. Further, participating breaks down barriers, allowing the researcher to get close enough to the community members to be able to record information about their lives. In addition, the researcher is more likely to be there...
to talk or listen when things come up. Overall, we believe that most of our fieldwork is more meaningful when we are able to engage with the communities of interest as a participant-observer. Overall, when acting as a participant-observer:
  o It is possible to collect more sensitive data
  o People are less likely to react to the researcher’s presence, resulting in better data
  o Participation improves understanding and leads to better questions and a better understanding of the implications of potential solutions

- Consider the different advantages and disadvantages of being an “insider” vs. an “outsider.” A researcher who participates can be both an insider and an outsider by participating in the activity with insiders, while observing the activity in yourself and others. In general, do not be reluctant to acknowledge your status as an outsider, especially if you have an insider connection. Some researchers ask community members to regard them as a child in their culture’s ways, and ask to be educated as they would educate a child.

Once you’re on site:
- Bring documentation about yourself (letters from officials on letterhead, business cards)
- It is often extremely helpful, and sometimes mandatory, to have a contact the community trusts so you can be introduced
- Prepare answers to questions (what will you do with the information, who pays you, how will it be good for the community)
- Learn the physical and social layout (draw map, name players and diagram social relationships)
- Develop skills of the local community to help establish rapport. Look around to see what other people do. Is physical contact common? Who makes eye contact?
- Consulting your observation guide, write down what you observe. In addition, write down what you observed that was not included in the observation guide. This is the difference between field work and casual observation. The use of “thick” descriptions, where the researcher strives to avoid assumptions, can help overcome unrecognized biases. For example, an observer might describe the same scene as: a) “a mother brought her child to see the doctor,” or b) “an adult female dressed in clothing typical of the community held the hand of and accompanied a child, also typically dressed, to a site staffed by medical and administrative personnel. They entered the building and interacted with the person at the desk marked, “reception.””
- Separately, write down your reactions to what you observe.

Additional considerations for hypothesis-related fieldwork
- Develop hypotheses and determine which behaviors will test these hypotheses, or after a period of goal-free observations, begin to identify key behaviors that relate to your topic of interest. Ask people to describe what they are doing, using their own words, and get clear definition of what is meant by the terms. This will make analysis of the results much more manageable.
- Hypothesis-related field work may entail continuous behavioral monitoring (which provides a reliable count of a behavioral occurrence) or behavioral stream monitoring (which provides behavioral pattern and flow).
• It is important to consider the implications of the sample (considering both time and place), the reactivity of the behavior under observation (does having an observer present impact the behavior?), and the reliability of observations.

Appropriate audiences
This method can be used wherever the researcher is comfortable visiting and the community is comfortable being observed. It may be inappropriate in dangerous settings, and like all research methods, must be employed carefully and sensitively with vulnerable populations. It is very important to be introduced by someone trusted by the community. If such relationships are not yet available for a community, developing such a relationship is an important part of successful observation, especially if the information sought is intimate to the community.

Staffing support roles and requirements
Observation requires the ability to establish rapport with the community and the ability to remain a detached and disciplined observer while simultaneously engaged with the community. It requires the researcher to record observations as promptly and thoroughly as possible, but in a way that does not interfere with the activity or events being observed. Each additional researcher increases the likelihood of disrupting the behavior being observed, but it may be worth that risk to be able to assign one team member to the task of recording observations while the other is more engaged, with time set aside immediately after the period of observation for enriching the notes with the observations of the participating member of the team.

Level and type of skill required
At its most formal, this observation requires years of training. However, much can be gained from simply entering the community, engaging, remaining alert, and writing down the observations as soon as possible. It is crucial to be able to communicate in the community’s language, either by having the language skills yourself (best) or by engaging as a part of the team a trusted community member who is part of the culture and bilingual. Keep in mind that this person must understand the value of rich observation and detailed reporting.

Quality and complexity of data
The quality of the data can be assured by the development of a careful hypothesis-testing research plan calling for easily observable data, such as the number of some behaviors or even the pattern of a behavior within a given context. This type of observational data can be assumed to be of high quality given a brief training process and conscientious data-collectors and is likely to be simple to analyze. However, it is not particularly rich. The quality of more ethnographic data depends on the self-awareness, thoroughness, and discipline of the researchers, and generally, the better the data is collected, the more complex and time consuming it is to analyze it.

Uses of the data, generalizability
This data can be used to improve understanding of a specific community in a specific context. It can be very useful to understand how people in a community go about their daily activities when planning services or trying to institute behavior change. It should not be assumed to generalize to other
communities, but it can be used to inform hypotheses about other communities and become a way of asking about practices in other communities.

**Community reaction to participation**
As long as the researchers are respectful and sensitive, community members are usually accepting. Some communities might be less open and with these it is particularly important either to take the time to establish relationships with community members who will support your work, or to invite respected community members to be part of the research team.

**Complexity of the process**
Varies, depending on the research design. It can be simple (count how many people come to the hazardous waste site; time their visit; note what they bring; note problems encountered) or complex (observe the behavior of people on their lunch break at a park).

**Cost**
Varies, depending on the need to engage community members and the openness of the community to observation by outsiders.

**Time**
The two aspects of observational research that may take a long time are any investment necessary to be accepted as an observer of the community and the analysis of the data. The first depends on the community and existing relationships; the second can be reduced by the development of hypotheses – prior to observation, during observation, or during data analysis. If the hypotheses are developed prior to data collection, they guide data collection and analysis can be relatively straightforward. If the data are already collected, the hypotheses will guide data analysis, permitting the analyst to sift through the available data for relevant information, leaving the unused data for another analytic endeavor.

**Examples**
(Implemented to supplement rather than replace other methods):

- In our work for the Gates Foundation on the use of technology in libraries, the Foundation team was initially persuaded that every aspect of computers should be made available in many languages -- a “solution” to cultural and language diversity that was unaffordable even to the Gates Foundation, so they developed only English- and Spanish-language models. Our observer, with careful observation in many settings over time, noticed that the vast majority of non-English-speaking computer users in libraries needed assistance in their native language only to begin to use the computer; afterwards they were comfortable with English-language commands, and could find online resources in their own languages. With this insight, the Foundation was able to develop and introduce computers with introductory commands in dozens of languages, serving a much broader constituency than they would have otherwise.

- In work with Microsoft where surveys were sent to Microsoft-supported technology centers in many countries, and sent back and interpreted by the corporation, our site visits provided strong evidence that the interpretations were widely inaccurate because the respondents were carefully chosen in many locations, often with much greater than average literacy skills, and that
the answers were often constructed to “please” Microsoft so that funding would continue, rather than accurately to portray the reality in these centers. Without field observation, this would not have been known by Microsoft, and the knowledge led to improved data-gathering techniques, improved product content and delivery, and improved relationships between Microsoft and the technology centers.

Advantages

- the information gathered is more comprehensive than more traditional methods (e.g., phone surveys, or questionnaires), providing a rich context for understanding people’s behavior.
- the community residents are likely to reveal relevant aspects of their behavior which are not asked about or which can be misinterpreted in closed-ended responses.
- the ethnographer can “follow his nose” and be led into productive directions for inquiry and understanding as they come up, including areas that might have eluded even the best structured questionnaire.
- when the field work is done sensitively, respondents often feel that that have been taken more seriously, and are not just cogs in a machine. They often continue to offer information and insights after the initial work has been completed.
- the stories that emerge during field work can be of enormous value in conveying the phenomenon being studied to people who were not present.

Disadvantages

- ethnography and field work are “harder than they seem.” People have to be trained to listen carefully, to know when something important has been said (however irrelevant it may appear on the surface), and to record their observations promptly and carefully.
- unrecognized biases on the part of the researcher can produce distorted conclusions as all research data come through the researcher and not directly from the community. Thus awareness of biases is crucial and the ability and means to ask questions is valuable.
- some respondents may have agendas that need to be distinguished from objective information. Settings where the information is gathered may be mistakenly (e.g., through bad sampling) or deliberately (Potemkin Villages) unrepresentative of the phenomenon one is attempting to understand. More generally, one’s conclusions are strongly impacted by the representativeness of the people one talks to or the sites one visits, though these problems can often be mitigated (see Gordon & Sullivan, 2009).
- occasionally people are uncomfortable with the initial presence of field workers, though much less so if the workers are well trained, and this effect typically diminishes over time.

Individual file review

Another way of gathering data without asking community members to provide additional time and thought is to use existing data collected for other purposes, often to meet funders’ reporting requirements. Many organizations that serve community members keep records of those services and can sometimes make these records available to researchers. It may be necessary to negotiate ways to de-identify the data, but if it can be made available, the use of existing data can save time and money for the researchers and participation burden for the community members. Further, providers may
suspect that the data they have been collecting may contain much useful information that the
organization has never had the staff time or expertise to explore. A partnership in which the
organization provides the data and someone else produces a report from it might be beneficial and
encouraging for the organization.

**Overview**

Client files usually contain demographic information along with participation information and
sometimes outcomes. Sometimes, available data will reflect only the amount of “traffic” or number of
questions. It may be possible to ask the partner organization to gather a little additional information as
they provide services or respond to questions, such as participant ZIP code, household composition, or
when the caller first noticed the problem being reported.

**How-to Guide**

The first step in using existing data is to determine the availability and quality of the data. If
organizations have the data and if they are willing to provide access, it is important to determine
whether the available information would provide the needed information and whether the same
information is available across files.

An easy way to do this is to start with blank forms used by the organization to get an idea of the
information that was intended to be collected. If the needed question items appear in the blank form,
the next step is to review six to ten files completed by a variety of staff members to determine whether
the files actually contain the desired data elements. If so, create a spreadsheet with rows representing
files (usually each individual has a file and each row in the spreadsheet would therefore contain the data
for an individual) and columns of variables or data elements.

It may not be feasible to conduct a 100% file review. If it is necessary to sample the files, consider all the
factors that may influence the information of interest. Factors that might be important are demographic
(age, sex, ethnicity, education, income, household composition, household type, language spoken at
home); geographic (ZIP code or neighborhood, in Seattle or not); staff member; type of service or
product; or some other factor specific to the research question. It may be reasonable to subdivide the
files into broad category (such as by staff member or by Seattle residency) and then use a random
number generator to assign random numbers to files in each group. When both groups are sorted by
their random numbers, the first N files (where N is the number of files that can be reviewed) will be a
random set of files.

It is easiest if the data elements to be extracted are obvious (participant’s sex or age), but sometimes,
they may require some digging through the file (household composition, country of education). To the
extent that data extraction calls for judgment, inter-rater reliability should be established if more than
one person is reviewing the files so that the information recorded does not depend on which reviewer
happened to pull a given file.

If individual level data is not available, consider whether other available data could be useful. Reviewing
a year’s worth of participation data (at a library, a food bank, or a shelter for example) could reveal
patterns of use that could help plan services.
In addition to extracting available information, it is also important to note the gaps – gaps in the question items that the organization included in the forms (reflecting what is important to the organization), and patterns of form completion (reflecting what is found to be useful to the staff or required by management).

**Appropriate audiences**
This method requires partnership with some sort of organization in the community. No interaction with community members is required.

**Staffing support roles and requirements**
Staff must be able to find data in sometimes inconsistent files maintained by community organizations. Confidentiality is very important when doing this type of research and the protection of the individuals referenced in the files is paramount. Arbitrary ID numbers should replace names. Identifying information should be omitted.

**Level and type of skill required**
Data extraction requires persistence and attention to detail. Creation of data extraction spreadsheet requires the ability to anticipate what information will address questions of interest, for example, what in the file will be interpreted as “housing stability” or “obtained training” or a viable recycling plan – and the ability to create the spreadsheet.

**Quality and complexity of data**
This depends on the quality and consistency of the organization’s file maintenance system, and the questions the researcher is trying to answer through the files. If the organization has good files and the answers to the researcher’s questions reside in those files, the quality can be high.

**Uses of the data, generalizability**
Depending on the data contained in the file, it can be used to document community need relative to the organization’s services, community participation in services or activities, and possibly, outcomes. Findings can usually be generalized to others in the community who are eligible to participate with the organization.

**Community reaction to participation**
As long as confidentiality and other high research standards are maintained, community members usually accept this use of data. If the information is highly sensitive, or if it is the practice of the researching organization or the community partner, it may be advisable to obtain informed consent from the people in the files.

**Complexity of the process**
Varies, depending on the research design.

**Cost**
Varies, depending on how many files are to be reviewed and how much data is to be extracted from the files.
**Time**  
See cost.

**Examples**  
Full file reviews were used to study the predictors of program completion in a workforce development project in Seattle/King County, including participant factors (such as age of children), and provider factors (such as training program). Though a significant effort was required to review all the files, reconcile the evolution of forms, and identify the data elements that emerged as the most consistently available, the results provided information that was not otherwise visible and that helped guide program development.

**Advantages**
- Data collection does not rely solely upon voluntary participation of busy community members,
- This approach takes advantage of an possibly underutilized data resource,
- This data source is less likely to be influenced by biasing factors such as faulty memory, discomfort or intimidation, fatigue, social desirability, or other factors that can influence self-reported responses,
- Data can be collected after the participant has left the organization or program – it makes no additional demands on the participant.

**Disadvantages**
- Files may be incomplete; it may not be possible to ask the person who maintained the file to fill in the gaps or explain confusions,
- Important data may not have been collected; different staff members may have interpreted question items differently,
- If forms change over the period of interest for data extraction, the change must be carefully noted and data must be reconciled.
Individual methods

Surveys

Overview

One of the most commonly used and widely applicable methods for gathering information and opinions, surveys can be administered in a wide variety of ways, gathering information from the entire population (e.g., all U.S. residents or all workshop participants), or from a sample (a representative subset of the population of interest). The information may apply only to the survey respondents themselves, or the information may be generalized from the sample to the broader population from which the sample was selected, with a specified margin of error and a specified level of confidence. Survey data can be analyzed using basic (descriptive) or advanced statistical techniques, probing the opinions or characteristics of a sample or the larger group they represent, or revealing relationships among characteristics, from simple differences among demographic groups to constellations of characteristics which predict the outcomes of interest. Surveys can result in the quantitative summaries of complex information that are often desired by funders and policy makers.

Surveys can be self-administered or read to respondents by interviewers. Self-administered surveys can be conducted by paper and pen or electronically (using online or email surveys). Self-administered paper surveys sometimes use the U.S. mail, or may be handed out in a public setting, sent home with school children, handed out when the respondent seeks services, or distributed through some other method. Self-administered surveys can be completed individually or as part of a group. Surveys can be used to interview respondents over the telephone (phone survey) or in person (e.g., community intercept survey, service intake survey, or evaluation survey at the end of a workshop). Surveys can be administered just once, twice (e.g., before and after a service is received) or repeatedly, sometimes for many years (e.g., a longitudinal study).

Surveys used to gather feedback about some experience for the purposes of quality improvement or marketing are almost ubiquitous. Customers or clients who have purchased items or availed themselves of services are often asked to rate the quality of the merchandise and the service via a paper survey, a telephone survey, an online survey, or a rating service. Even Facebook asks us to complete single item surveys when we are invited to or a Facebook entry.

Surveys are among the most cost-effective methods for gathering consistent data from a large number of individuals. Although high quality survey development often consumes considerable resources, the administration cost of self-administered surveys is low, as is the data entry cost of each survey. The use of open-ended items increases these costs but is often well worth it (see below).

How-to Guide

Mode of administration

Surveys can be administered in a number of ways.
• Mailed to households with a return envelope, such as the U.S. Census (known as Address Based Sampling).

• Delivered to email addresses with instructions for responding. This has been used in virtual communities -- groups that meet by telephone conference and typically communicate through email.

• Administered through a third party, such as a community partner. The evaluation of the Gates’ Foundation’s Library Program called for the survey of patrons of thousands of libraries in all 50 states. The evaluation relied on the library staff to display the surveys, encourage patrons to complete them, supply a receptacle for completed surveys, and return them.

• Handed out individually in person (at a community location, such as a grocery store, shopping mall or at a community event). For example, the National Science Foundation wanted to evaluate an event at their annual conference of computer science educators. Brief paper surveys were created and the researcher approached visitors, handing out surveys and asking visitors to complete them. Respondents provided valuable feedback that helped the NSF make important changes to the format.

• Handed to group members in person (such as a supplement to a focus group, or after a workshop, training class or other event). When surveys are handed out either in a group format or individually, they can be self-administered or used as interview instruments so that a research assistant asks the questions and completes the survey. This is one approach to allow people to participate who are not comfortable with reading or writing.

• Conducted by telephone with the interviewer reading the questions to the interviewee and recording the answers.
  o Telephone surveys can be used as a follow up to increase the response rate of other types of surveys, such as mail surveys.
  o Telephone surveys do not require literacy on the part of the respondent
  o Surveys administered by an interviewer can incorporate more complex branching options (e.g., if YES, go to question 5) than self-administered surveys.

• Surveys can also be administered through the Internet using online survey tools such as SurveyMonkey, Zoomerang, SurveyGizmo, or QuestionPro. This method is most effective when target individuals are known to have easy access to the Internet, preferably related to what makes them part of the group. For example, students at the UW have relatively few barriers in responding to an online survey since their studies require computer and Internet access. Employees in many local high tech firms complete Washington State’s Department of Transportation Commute Trip Reduction surveys using an online tool rather than the paper surveys that were originally developed.

**Frequency of administration to the same respondents**

**Single administration surveys** are also used to evaluate instructors, especially in higher education, and programs or interventions, such as those funded by government or foundations and designed and delivered by government or nonprofit organizations. These might ask participants to rate their satisfaction with the experience, or they may go further and ask participants to rate their perception of...
learning, or their intention to use the material covered in the event. Single administration surveys can also be used to collect indicators of a community norm.

Examples:

- Since 2001, the City of Seattle has conducted three residential telephone surveys to explore different aspects of community engagement and use of technology. This information has been used to plan services for residents and to compete for funding opportunities.
- An AIDS prevention program used annual “intercept surveys” in bars to explore sexual risk-taking behavior of bar patrons in communities receiving a community-level intervention, as well as in comparable communities not receiving the intervention. Analysis of these surveys showed that in those communities where the intervention was implemented correctly, community norms were affected toward safer sexual practices, as compared to communities without the intervention or when the intervention was not implemented correctly.
- Family Support programs in Seattle administered annual paper surveys of participants to assess the programs’ impact on key indicators important to City government. These surveys helped Seattle’s HSD and the City Council assess the impact of the programs on Seattle’s families.

Pre and post surveys (or pre, post, and follow-up surveys) ask the respondents to answer the same questions twice. These studies require some sort of identifier that allows the researcher to link the pre and post surveys so that responses before and after the intervention or activity can be compared. These can be used in educational settings to discover whether the instruction produced more accurate responses (and when a follow up survey is used, whether the material was retained). It is also often used before and after an intervention intended to help participants make a change. The purpose of the pre-survey is to identify the baseline measurement of the characteristic, against which the post (and if available, the follow-up) measurement(s) will be compared.

Examples: An evaluation of YouthCare’s Catalyst program, a low-barrier housing program for young adults, used pre- and post-surveys to assess the program’s impact on many youth characteristics, including mental health, developmental assets, drug use, PTSD symptoms, criminal behavior, and other characteristics.

Longitudinal studies follow individuals over a long period of time collecting information about the same variables at each observation. This design is used to study a developmental process and to track long term impact. Epidemiological studies use these datasets to identify risk factors and protective factors related to various health outcomes.

Examples:

- One Unit at the University of Washington conducts an annual telephone survey with program participants since the 1990’s to track participation in program activities and progress toward educational and career milestones. Some participants have been interviewed more than five times. Analysis of this dataset describes the progress of program participants, and deeper analysis of the dataset was able to identify predictors of various important outcomes.
• An AIDS prevention unit at the University of Washington conducted a study with the Washington State Department of Health to identify strategies to enhance the treatment medication adherence of HIV+ individuals. Part of the evaluation called for repeated surveys of the 400+ participants over the 18 months of their involvement with the study asking, among other things, about their use of medications in the prior week. Great care with confidentiality was required because of the sensitive nature of the study, but it was crucial to link the responses over time. These surveys were able to identify the programs with the greatest adherence, and combined with other components of the evaluation, were able to identify some of the factors that are supportive to HIV treatment adherence.

Survey elements
Most surveys are dominated by closed-ended questions where the respondent is asked to choose from answers already provided by checking a box or ranking a series of choices or issuing a rating on a scale defined by the researcher.

A difficult balance must be maintained between creating a reasonably short survey and one that provides all the needed information. While designers are well advised to eliminate any questions that will not improve understanding of the topic or population, survey respondents will complete a longer survey than most people expect, especially if it is interesting, if their opinions will contribute to something they care about, and if the experience is not frustrating or annoying.

Great care must be taken to ensure that the questions will produce the needed information. It is all too common for people to be surprised at how a little tweaking would have dramatically improved the utility of the results. Appropriate pretesting is crucial to ensuring that questions can be understood and answered by respondents. Moreover, the survey must be sufficiently engaging to attract and maintain the respondent’s attention. Some tips for survey construction include:

General considerations
• Clarify your goal before you write the survey and keep that goal in mind as you create the questions.
• Include an introduction or explanation of the survey. Make it very brief if you want people to read it, but not so brief that it isn’t there.
• If this is a survey to evaluate an event or product, remember that the most useful feedback will be feedback that helps you improve. Make it easy for your respondents to give you that kind of feedback by introducing the survey in that way and making your questions as neutral as possible.
• Consider the experience the respondent will have in answering the survey. Remember that they are showing you a kindness by completing your survey. Do your best to make your survey deserving of their effort.
• If the survey topic is sensitive, or if sensitive responses will appear on the outside of the survey, provide respondents with envelopes for their surveys, even if they are then dropped into a box.
• As much as possible, avoid *required* responses. Use them only for questions which, if unanswered, would render the survey useless. Every response should be optional and it is fair to explain (briefly) why certain questions are very important.

• Make sure the survey is in the language of the target respondents. If this means having the survey translated, avoid counting on an online translator. Instead, ask a bilingual person to translate the survey and then test the quality of the translation by asking another bilingual person to translate it back into English. A poorly translated survey will be more difficult to complete, more difficult to interpret, and may not convey how much that group is valued. City and LHWMP agencies have translation resources available. Contact your communications staff for assistance.

• Pilot test your survey. Take it yourself and ask others to take it. Be sure to include testers from all sampling groups. For example, if you are implementing the survey across cultures and language groups, be sure that members of those target groups have had a chance to respond to the survey and give feedback. Use the feedback to make improvements.

• Whenever possible, communicate to survey respondents how you have used their information. If the survey helped decide the type of service to implement, advertise that fact. As people come to understand that their answers are being used to make a difference, they become more willing to participate.

The questions themselves

• Make survey questions as easy to understand as possible. Use short words and short sentences. Do not require a lot of reading before the respondent has the chance to answer. If the question requires a lot of explanation, keep working on the question until it doesn’t.

• Look at other surveys to find questions that work. If you are trying to measure underlying constructs, like self-esteem, motivation, or aggression, review instruments that have been developed and validated to measure the construct of interest and incorporate it into your survey.

• Make the survey as easy to respond to as possible. This especially applies to questions asking respondents to rank order a list. Do you really want your respondents to struggle over whether a choice should be their 8th or 9th rank? It may be more reasonable to ask participants to rank their top 3 or top few.

• Avoid “double-barreled” questions where the respondent is asked to respond to more than one issue in a single response. For example, “The presentation was interesting and helpful.”

• Respondents often try to answer with more precision than the researcher actually needs. Try to avoid questions that will send respondents to their files or another resource to answer. When asking for factual information, for example, consider asking for an estimate.

• Include a “not applicable” option if such a response is possible, so that respondents will not feel that the survey does not apply to them.

• Be generous with “other” response choices and *provide space for respondents to specify what they mean by “other.”*

• Be generous with open-ended question items. Allowing respondents to write in responses can be enormously valuable in learning what you didn’t know and communicates to respondents
that you value their opinions, even if you were not able to imagine those opinions in advance. However, *don’t use open-ended questions as a substitute for doing the work of creating good questions* (and answer choices). Choose a few questions where respondents can write in answers and leave space on each page for “other comments?”

- When asking an open-ended question, be sure to leave enough room for a response

**Survey organization and layout**

- Start the survey with questions that are easier and more interesting to your participants. These questions may also introduce the general topic and format of questions. Ask the most important questions next unless they are also the most sensitive questions.
- Give the respondent time to become comfortable answering before asking sensitive questions. Demographic questions are often sensitive and somewhat boring to answer and for those reasons should appear toward the end of the survey. If the survey is paper, that is to be refolded and potentially associated with the respondent questions on the outside of the survey cannot be sensitive. End the survey as positively as possible.
- Try to group the questions that are similar, and organize the survey so it flows.
- Find a pleasing balance between the use of similar formats for questions, and varying the format to keep the respondent’s alert attention. If the formats change too much, respondents can become confused and annoyed. At the other extreme, if respondents are presented with page after page of the same format, the task can be boring or overwhelming.
- Items on the right side of the page are often overlooked. If you must place questions on the right side, do something to draw attention to it.
- Include pictures if you can. They give your respondents a little break and a well-chosen picture can help the respondent connect to your survey or your questions.

**Sampling and response rate**

If the purpose of your survey is to generalize from a sample of respondents to the larger population (for example, a telephone or mail survey of Seattle residents who will be asked to represent other residents), sampling properly and obtaining a sufficient response rate are difficult, sometimes expensive, and often crucial to correctly interpreting one’s results. (If you are asking service recipients, or workshop or focus group attendees to complete a survey evaluating the event, this consideration is not as important as long as most of the people you ask complete the survey.)

When planning a telephone, email, or mail survey that is intended to represent a larger group, several factors must be considered. Using a telephone survey as an example, ask what groups are more likely or less likely to respond to a telephone survey. Steps can be taken to overcome some of these sampling challenges, but the researcher must be aware of them and plan for those corrections. Table 2 provides some examples of sampling challenges and possible solutions.
<table>
<thead>
<tr>
<th>Sampling challenge</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the telephone survey is in English, non-English speakers will be excluded. A</td>
<td>Translate the survey and hire bilingual interviewers</td>
</tr>
<tr>
<td>more subtle challenge is that individuals from a different culture may not be</td>
<td></td>
</tr>
<tr>
<td>comfortable responding to a telephone survey, regardless of the language</td>
<td></td>
</tr>
<tr>
<td>If the phone book is the source of telephone numbers to call, people with</td>
<td>Work with the telephone survey firm to buy randomly generated numbers (Random</td>
</tr>
<tr>
<td>unlisted numbers will be excluded.</td>
<td>Digit Dial or RDD)</td>
</tr>
<tr>
<td>Unless the telephone survey takes steps to include cell phone only users, those</td>
<td>Work with the telephone survey firm to buy RDD numbers for cell phones</td>
</tr>
<tr>
<td>without landlines will be excluded.</td>
<td></td>
</tr>
<tr>
<td>If calls are made only during the day, people who work a 9-5 schedule will be</td>
<td>Work with the telephone survey firm to select a call schedule that will include</td>
</tr>
<tr>
<td>excluded.</td>
<td>all groups</td>
</tr>
<tr>
<td>Women and seniors are often overrepresented in phone surveys</td>
<td>As the survey progresses, consider incorporating quotas to limit the number of</td>
</tr>
<tr>
<td></td>
<td>respondents who are overrepresented. (This means moving some demographic</td>
</tr>
<tr>
<td></td>
<td>questions to the beginning of the survey which is off-putting to some</td>
</tr>
<tr>
<td></td>
<td>individuals.)</td>
</tr>
</tbody>
</table>

In addition, if the researcher wants to be able to summarize the opinions of specific demographic subgroups with confidence and precision, it may be desirable to **oversample** those groups if they do not occur frequently enough by chance. Once oversampled, the survey may reveal important information about the oversampled group, but when combined with the rest of the sample, that oversampling may distort the overall findings. One way to correct a sample that is not representative of the population is to assign **weights** to certain demographic groups. For example, if the sample contained 75% men, but the population is 50% men, the women’s responses can be weighted more heavily than the men’s so that the overall responses are representative of the general population. An important challenge with this approach is the assumption that those women who were sampled truly **are** representative of the women who were not.

Once the sample is established and its limitations are understood, the next challenge is to secure a reasonable response rate. This is important because if only a few in the sample are willing or able to respond to the survey, it suggests that those few are different from the many who did not respond and to the extent that those differences are also related to the survey responses, the few respondents will not be representative of the entire group. The higher the response rate, the better the sample will represent the entire population. In a telephone survey, the response rate is increased by re-trying numbers that are determined to be valid at different times of the day and on different days until the phone is answered or the maximum number of attempts is reached. Some experts recommend a response rate of 20%. 
Appropriate audiences
Surveys can be administered to any audience, as long it is at the right level and in the right language.

Staffing support roles and requirements
Staff must carefully clarify what information is needed, especially from the perspective of how it will be used. Staff also have a crucial role in reducing survey length. Staff may be responsible for administering the survey and if so, they must be able to engage participants, manage rejection, and help community member understand questions. It can also be very helpful if they are trained to record comments made by survey participants that expand their survey responses. If it is a paper survey, staff may be responsible for survey lay out, for finding addresses and mailing out the surveys with SASE, and receiving the surveys back. Staff may need to develop the data entry form and database to contain the data, and possibly conduct the data entry. Staff may be responsible for programming the online survey.

Level and type of skill required
The tasks are conceptual (designing the research including information needed, population of interest, method of administration), technical (developing the questions and designing the survey, translating the survey as necessary and later, translating the data, as necessary, and analyzing the results), and productive (implementing the survey – distributing, encouraging participation, and collecting, or interviewing, entering the data into a computer for analysis).

Quality and complexity of data
It depends on the survey. If the design, the administration, and the question and answer choices are good, the quality will be good. If the questions or the answer choices are not good, if the research design or the survey administration is flawed, the data may not be salvageable. The complexity of the data depends on the survey. A simple short survey asking how the participants liked a workshop and how they’ll use what they learned will probably yield simple data. A more involved survey of households about their use of city services or decisions related to waste disposal is likely to be more complex.

Uses of the data, generalizability
If the sample was well-selected, a good response rate is achieved, and responders are unlikely to be different from non-responders, findings should be generalizable to the community from which the sample was drawn. If the response rate is poor, it raises the question of how responders are different from non-responders and that bears on generalizability. If an administration method is used that excludes some people, the results cannot be generalized to the excluded groups. For example, an online survey can be generalized only to Internet users; a paper survey sent home with school children can be generalized only to parents/guardians of children in public schools.

Community reaction to participation
Overall, people seem willing to complete a survey if it’s interesting to them and especially if they understand that their opinions will be used for the public good. But people receive many requests to provide feedback and may be saturated.

Complexity of the process
It varies from very simple to very complex depending on the goal of the research.
Cost
Varies, depending on design decisions. Telephone surveys and in person intercept surveys can be very expensive with a high cost per completed interview. Mail surveys have a low “per complete” cost, but also a low response rate. Online surveys may be the least expensive to implement as they avoid the cost of an interviewer, the cost of postage, and the cost of data entry, but the target audience is restricted and the response rate is low. Using scannable forms can reduce data entry time and error, and will populate data tables automatically.

Time
Again, it depends on the complexity of the research project. If it is a simple and brief satisfaction survey that has been used before, the time required for all stages of the research is negligible. If it is an attempt to understand the complexity of human decision-making and preferences related to waste disposal, all aspects of the research project will be time-consuming.

Example
We used repeated surveys of bar patrons in gay bars in Washington, Oregon, and Montana over a several year period to estimate changes in sexual risk-taking. Some communities received a community level intervention that trained community "opinion leaders" to change community norms by initiating discussion about safe sex and HIV status. Other communities without such an intervention were recruited for comparison purposes. With these surveys we were able to show that after communities began to implement the program, community norms (as measured by the responses to the bar surveys) changed significantly in the intervention communities, but not in the comparison communities.

Advantages
- Surveys can gather much information from many people quickly and for a lower cost than many other types of data collection. If the questions are good, the sampling is appropriate and limitations understood, and the response rate adequate, it can produce valuable, reliable information that can be used to guide program development or make improvements in programs or services.
- Surveys can be very straightforward to analyze and they enable the use of sophisticated techniques to explore more complex questions
- Surveys can be anonymous in a way that data from other data collection techniques may not be
- Surveys link together all the responses of individual respondents, so that the relationships among variables can be analyzed
- Surveys produce quantitative data, amenable to presentation in tables and charts which can be useful for readily understanding large amounts of information, including differences between subgroups.

Disadvantages
- Every aspect of conducting surveys is usually harder than it looks.
- Assumptions are daunting for the survey results to mean what they are intended to mean. This includes:
Assumptions related to sampling – that the researchers understands the limits of the sample, knowing who is and who is not represented in the survey

Assumptions related to questions – that the respondents understand the question items as they were intended, and if not, that the researcher is aware of misunderstandings that arose. And further, that the question items actually measure what they were intended to measure.

Assumptions related to participation – that the respondents attempted to answer the questions legitimately

- Because of the closed-ended nature of most survey questions, it can be very difficult to gather perspectives other than those of the research team. For example, with a survey, it is difficult to get the feedback that these are the wrong questions or the response lists seem incomplete. You don’t know what you don’t know.
- Survey self-administration requires individuals to be able to read and write.
- Statistics experts may be required for design, analysis and reporting.

Interviews

Individual interviews can be open-ended and expansive or simply a verbal implementation of a survey. Since surveys were described above, this section will focus on open-ended interviews. It is also possible to conduct group interviews with individuals who may work together and prefer to be interviewed together. This choice should be offered carefully as interviewees may be uncomfortable offering controversial perspectives or providing important details in the presence of a colleague. Interviews might be the most effective technique when the researcher seeks a detailed understanding about a topic about which specific individuals have special expertise. These individuals are sometimes called “key informants.” Sometimes, a group may possess the information but it is still beneficial to conduct individual interviews if it is not feasible to bring the group together or if some of the issues might be sensitive, so that the informants may need confidentiality. Interviews are good for detailed understanding from individual perspectives, but not as effective for generalizing to the rest of the population (like a survey) or for surfacing or discussing different perspectives (like a group method).

Overview

The most informative interviews are conversational and the informant may not realize he is being interviewed. Create an interview instrument, and identify the most important questions to cover. An interview is a joint project between the interviewer and the informant. Interviews can be conducted whether or not you have a good understanding of the topic or the community. Interviews can be used to understand a topic area in more detail. The goal of an interview is to give the informant the opportunity to discuss his perspective so that the interviewer can understand the issue from that perspective. Thus, it is very important to develop questions that invite the informant to talk, to tell stories, and to explore verbally. If the informant becomes stuck, it is important to offer probes that do not direct or take over, but that invite the informant to follow up or go into more detail.
How-to Guide

- **Setting:** Let the informant choose the setting. Ask for a place that is private with little opportunity for interruptions. Try to place the chairs at right angles, or sit at a table. In addition, if possible, spend time with a group in their own setting – go to the field. It’s holistic, interconnected and can require long intensive field studies to see how things relate in a broad pattern.

- **Relationship:** The first goal is to establish rapport and set the informant at ease by explaining the purpose of the interview and what is expected of the informant. Clarify the confidentiality policy and how the information will (and won’t) be used. It is often helpful to start with an easy, non-sensitive question and if the interview deals with challenging topics, it is important to have a few questions at the end that are lighter, helping the informant move away from the challenging topics before returning to his daily routine.

- **Openness:** Make your open ended questions *open*. Questions should be “large” enough so that what comes from them is the respondent’s perspective, not the researcher’s. Try to avoid aggressive or demanding interview questions that direct respondents in how to answer them. Try to avoid questions that constrain the answers. Try to avoid judgment. Strive to make interview questions inviting and thought-provoking. Use respondents’ words and whenever possible, wait for the respondent to invite you to sensitive topics. For example, if the respondent doesn’t mention his family, don’t ask about it. If he does, go ahead. The less you know about the topic, the less structured your questions will be. If you do know about the topic, you can have a question list. But consider the possibility that it is more important to let the informant talk about how he sees the issue than it is to get your particular questions answered.

- **Words:** Try to hear the words that people use then try to figure out what they mean by them, try to use them to gain insight and to ask questions – *this is one of the most important considerations in qualitative research*.

- **Beyond words:** In an interview, it is important to pay attention to more than the words of the informant. Also pay attention to the tone of the words, the face, the eyes and the body.

- **Naiveté of outsider is ok** – navigate the fluid boundaries of insider/outsider to gather different kinds of information. As an outsider, people will become your teacher. As an insider, you can get more sensitive, more private, less reactive information

- **Be aware of sensitivity that you may not expect**

- **Resist the temptation to find the right, summing up answer**

- **Note taking:** Differentiate between exact quotes and paraphrasing.

- **Recording:** Consider using an audio recorder to record an interview. It can be difficult to identify where to follow up if the researcher is focused on trying to write or type notes. On the other hand, the informant often adds important information into silence that ensues as the researcher is finishing making a note of the last comment. Thus, silence is also an important way of encouraging more information and detail.
• **Transcription**: for ethnography, transcribe everything, including all the dysfluencies, such as "uh..." "um..." "(laughs)".

• **How many is enough?** Do focus groups/interviews till you reach "saturation" and begin to hear the same answers.

Sometimes, you may need more information to understand what the informant is telling you, or the informant may need help in knowing how to continue. The goal remains helping the informant express himself about the topics that are important to you. You can ask one of the questions on your question list, or if the previous topic does not seem to be completed try some of these probes:

**Tips on probes**
- Be sure it’s culturally appropriate
- Try silence
- Iteration (repeat the words the informant said)
- Restate what informant says (in their words, don’t reinterpret)
- “What else?”
- Grand tour question: “Tell me what you do in a typical day.” May be better than a too open question
- Directive probes “Describe...” “Tell me more”
- Structural questions (what are all the different kinds of illnesses a baby can have?)
- Contrast questions (traveler vs. tourist)
- Ask for opinions
- Ask for use
- Ask questions that will get them to talk – a question that elicits a story or two is a good question
- At end (earlier if informant tires) ask “Is there anything else you would like to tell me? Anything else I should have asked you?”

**Strategies to avoid**
- Interrupting
- Asking leading questions (questions in which the answers may be embedded)
- Asking factual questions (focus on opinions or local knowledge instead)
- Asking “why” questions
- Asking closed questions (yes/no answer)
- Asking “What do you mean.” Try a different probe.
- Asking informant to do analysis or make a judgment

**Sample open questions**
- “Can you say a little more about what it means to care for your community?” They’ll probably say a bunch of things. Use their words for the next questions.
  - “What kinds of XXX?”
  - “XXX?...”
  - “Tell me more”
- Ask contrast questions – what does not belong in the group?
Methods for checking interpretation and strengthening validity

- Monitor consistencies and inconsistencies within and between informants. If informants disagree about something important, try to understand why.
- Try to fit extreme cases into a theory – don’t be too quick to throw them out, even if you can’t fit them in.
- Switch perspectives between emic (indigenous) and etic (external/researcher), or micro to macro.
- Triangulate: Check informant reports against other data.
- Remain open to negative or contradictory evidence.
- Look for a range of interpretations – seek out alternatives.
- Use thick description (objective report of event or behavior as devoid of interpretations as possible) to bubble up bias and assumption. Invite others to take the raw data and draw their own conclusions. Reanalyze the same data again when you have more context or different biases.

Notes about Objectivity
Examine the biases and values you bring to the research. Switch between insider and outsider views to try to increase objectivity. Be aware of sources of bias, such as:

- Response – who you are and who you talk to and where
- Being an insider – insiders don’t ask the basic questions; they make assumptions
- Deference – social desirability on the part of informant
- Expectancy – when the researcher interprets findings consistent with her worldview
- Distortion – when the researcher sees what she wants to see, even if it isn’t there
- Recall – memory problem
- “Sucker” bias – informant misleads you

Appropriate audiences
Interviews can be used for all adults. For certain vulnerable populations, it may be important to provide additional support to ensure the comfort of the interviewee. For dangerous interviewees, it may be important to provide additional support for the safety of the interviewer. Some agencies have safety plans in place to avoid this kind of danger. Staff should consult with their safety committee.

Staffing support roles and requirements
Sometimes two people attend an interview – the interviewer and a note-taker.

Level and type of skill required
The interview must be conducted in a language in which the interviewee is fluent. Interviews require the ability to establish rapport, the ability to understand the interviewee, and to think about and respond minimally to the interviewee’s comments, but enough to elicit more comments or stories, while recording the interview or taking thorough notes. Interviewers must be sensitive to how much they are talking (less is better) and how to encourage the interviewee to open up. It requires openness and a sense of curiosity from the interviewer and the absence of judgment. It requires sensitivity to the
interviewee throughout the interview and perhaps especially at the end so that the interviewee can leave the interview as comfortably as they came into it. Of all the data collection methods, interviews may have the greatest confidentiality demands because of the in depth nature of the process.

Quality and complexity of data
Open-ended interview data is among the most complex and the highest quality because interviewees are able to supply thoughtful and in depth responses to questions, as well as context for their responses. Interactions with the interviewee permit the researcher to better understand the responses. However, this process produces considerable complexity of the data which will have significant analytic requirements.

Uses of the data, generalizability
This method is most useful when the information sought is complex, latent, sensitive, or poorly understood from other resources. It might be a first step of a needs assessment, to understand the community “landscape” of need. For example, it might be to better understand the complex or culturally specific issues related to one’s relationship with the land around one’s home. Generalizability depends on how the interviewees are selected and who is interviewed. In general, the findings can be generalized to others in the group from which the interviewees were selected. Key informants who are accepted community experts can be assumed to speak for the majority or dominant community perspective, however, it is prudent to compare comments made by key informants with those made by other community interviewees.

Community reaction to participation
Community members often appreciate being interviewed. Even though it is burdensome, since the interviewee has the freedom to direct the interview and if the interviewer is sensitive and responsive, the interviewee usually feels valued and listened to.

Complexity of the process
Less complex than other methods. It requires recruiting interviewees, developing a few key questions, and the ability to help the interviewee open up without being leading or demanding. The complexity arises in the data analysis step of the process.

Cost
This is usually an expensive method in terms of cost per interview.

Time
Each interview may require more than 2 hours (scheduling, travel, and conducting the interview). In addition, the coding process takes several hours for each hour of interview.

Examples
Key informant interviews were used with representatives from eight auto body shops in King County in an effort to potentially reduce toxic chemical use in King County. Interviewees were asked to respond to the possibility of incorporating "safer alternative" messaging in the chemical inventory database used by the industry. The research revealed that such an approach was unlikely to be effective, and provided
additional information that gave some insight into barriers to adoption of the safer alternatives and possibly pointing to other promising avenues to explore for getting the message out.

**Advantages**
- Interviews allow in depth explanations
- Interviews allow the researcher and informant to ensure that they understand one another because of the opportunity to ask clarifying questions
- Interviews provide a high level of confidentiality and can encourage the sharing of sensitive information
- Interviews allow the informant to explain the topic according to his perspective, not biased by the perceptions of the researcher
- Interviews produce rich data with complex information

**Disadvantages**
- It is not as easy as it looks to conduct an open-ended interview. It requires constant vigilance to ensure that the questions remain open, interesting, and inviting. It is also difficult to maintain excellent skills and is easy to miss the interviewee's point if the interviewer is distracted or misinterprets what is said.
- Coding and analysis are time consuming but important for an accurate report. The deeper and more detailed the interview, the more difficult to analyze and synthesize with other interviews to create a comprehensive report.
- Interviews are time consuming and are not representative of the community as a whole.
- Interviews rarely develop new ideas or solutions.

**In Person Electronic Polling**

**Overview**
Electronic Polling refers to a family of strategies that utilize various devices (typically hand-held) to solicit the responses from and provide feedback to groups of people (focus groups, town hall meetings, classes) in real time -- while a meeting is underway.

These techniques (often referred to as *audience response systems*) range from fairly simple to extremely complex. All require some level of participant training; some require elaborate preparation and practice, particularly if one is to utilize many of the advanced features.

Some systems (e.g., the varieties of *Qomo QClick Interactive Wireless Audience Response System*) devices use proprietary keypads provided to each participant to enable real-time data collection (with the “simple click of a button”) and feedback to focus groups, classrooms, and corporate meetings. Qomo’s strategy is touted for “encouraging audience participation” and collecting individual data while ensuring anonymity. *Qomo* systems limit responses to single buttons (multiple choice) answers to questions.

The many alternate systems now emerging vary in their scope, features, and prices. One, *Poll Everywhere*, is distinctive in enabling the use of the wide variety of devices (smart phones, tablets,
portable computers) people often bring with them to meetings, and in allowing participants full-text responses and questions as well as answers to multiple-choice questions. *Poll Everywhere* respondents can also be “geographically dispersed,” even internationally.

**Example**
- Using an early but powerful Audience Response System, Stuart Elway conducted a live hour-long poll on NBC in Seattle, leading a carefully balanced audience through a detailed discussion of transportation options for Puget Sound. With the help of a variety of expert speakers and well-prepared audio-visual materials, the electronic feedback system yielded several advantages over other strategies, including immediate feedback on
  - which vocal participants were outliers and which represented the views of other participants, and
  - how subsets of the audience (e.g., heavy vs. infrequent public transportation users) responded to the discussion.

The resulting session was finely tuned to the audience, put rumors to rest, and was considered highly informative for laypeople and traffic specialists alike.

**Appropriate audiences**
Any group of people that can operate a remote control device.

**Staffing support roles and requirements**
Manage the equipment (check it out, make sure the devices work, prepare to offer assistance to users), develop questions to be polled, attend the event – organize it if necessary, though it can be difficult to get people to attend.

**Level and type of skill required**
Staff need to know how to manage and use the device, including developing the questions, programming them into the device’s software system, introducing them into the presentation, and if appropriate, feeding the results back to the audience as they are tallied by the computer. Additionally, the analysis requires skills equal to the analytical needs.

**Quality and complexity of data**
Once the audience understands how to use the device, the quality of the data should be high, but most systems permit only very simple questions – true/false, or multiple choice. If the questions or the answer choices are not meaningful or appropriate, the data will not be useful.

**Uses of the data, generalizability**
This method can be used to gather community response to simple questions. It can be generalized to the group from which the sample was drawn, assuming that the selection process was random or at least representative.

**Community reaction to participation**
Community members have been reported to find this method interesting, especially when the option is used to reveal their responses.
Complexity of the process
Moderately complex from the perspective of the participant – they have a piece of equipment to manage and a new device to learn how to use – in a public setting. Somewhat more complex from the perspective of the researcher because of the demands of the device, from programming it to checking it out, to implementing it on site.

Cost
The devices themselves are expensive but the costs per use are inexpensive.

Time
The process is not time consuming for the audience, but for the researchers, time must be invested to learn to use the device, to create and program in the questions, and to check out and manage the devices in the field. Researchers save data entry time for the responses (audience enters by clicking) and the software provides some built in reporting features.

Advantages
• Immediate feedback from the audience, so that the group facilitator knows during the course of the meeting whether information is being communicated effectively.
• These systems can be used with a small number of people (at a table or in a focus group), or with hundreds in a large auditorium, if enough handheld devices are available.
• The ability to display comments (selected as desired) and graphic summaries just as soon they have been collected.
• While information is collected from all respondents who wish to participate, confidentiality of individuals is assured.
• Helps ensure that vocal participants do not dominate the session (or skew the data) by providing ready feedback about whether their perspective is representative.
• Appropriately configured, many systems allow one to trace the responses of each individual to each question. This permits analysis of subsequent items by subsets of people (males, females; Chinese, Vietnamese) while preserving the anonymity of each respondent. Demographic data can be collected without specific identifying information (name, address, etc.) about the individual.
• Appropriately configured, some systems allow the simultaneous use of multiple languages.
• Once staff are trained and familiar with the equipment, the input (questions) and output (text, graphs, etc.) can be modified in many ways, and promptly in the hands of experienced operators.

Disadvantages
• Training is necessary, and can be complex for some systems and for advance features.
• Session leaders must ensure that the equipment is operating well (batteries charged, each device labeled and working) and that the right computer operating system and software (typically, some flavors of Microsoft Windows and PowerPoint) are available.
• While most participants take readily to the devices, some group members find the systems so confusing that they fail to respond, or do so haphazardly.
• Electronic Polling Strategies evolve and replace one another quickly, so your capital investment may not have a long life.
• Depending on the system, questions may be limited to simple Yes/No or multiple choice items.
**Group methods**

Group methods include such techniques as brainstorming, focus groups, mutual interviewing, and the nominal group technique. Overall, these methods are especially useful for generating new and creative ideas, and for thoroughly investigating differing perspectives on a topic. Table 3 below summarizes the relative strengths of brainstorming, focus groups, Nominal Group Technique (NGT), and mutual interviewing.

Table 3. Strengths of different group methods

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Brainstorming</th>
<th>Focus group</th>
<th>Mutual interviewing</th>
<th>NGT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficult for dominant participants to control</td>
<td>N</td>
<td>Maybe</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Avoids “quick decision making”</td>
<td>N</td>
<td>Maybe</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Generates a high number of comments/ideas</td>
<td>Maybe</td>
<td>Maybe</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Provides support to allow identification of personal problems and self-disclosure</td>
<td>N</td>
<td>Maybe</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Allows measurement of importance of ideas/items to individuals</td>
<td>N</td>
<td>Maybe</td>
<td>Maybe</td>
<td>Y</td>
</tr>
<tr>
<td>Avoids pursuit of single train of thought (“focus-effect”)</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Encourages minority concerns/options to be voiced</td>
<td>N</td>
<td>Maybe</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Participants value social interaction, i.e., group cohesiveness</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Maybe</td>
</tr>
<tr>
<td>High degree of task completion</td>
<td>N</td>
<td>Maybe</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Ease of administration</td>
<td>Y</td>
<td>Maybe</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Facilitator needs little training</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>High level of confidentiality for participants</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Researcher must speak language of the group or use a translator</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Highly engaging</td>
<td>Maybe</td>
<td>Maybe</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>
**Brainstorming**
This method is useful when the goal is to find a new idea or a creative solution to a specific question. The question is posed and about 12 participants offer responses. The rules of a brainstorming activity are:

1) Produce as many ideas as possible – it’s helpful if a scribe (not the facilitator or a participant) can write them down
2) Do not criticize, discuss, or evaluate ideas during the generation phase
3) Reach for and welcome unusual ideas that may point to a new approach
4) Ideas can be combined

The main advantage of brainstorming is that participants can build on one another’s ideas and in that way, produce more and more varied solutions than could individuals working alone.

The main disadvantage of brainstorming is that because only one person can speak at a time, this method can be dominated by a few participants; while others may choose not to participate or may forget their contribution by the time they have an opportunity to give it. A negatively interacting group can reduce creativity.

**Traditional Focus Group**

**Overview**
This method is used to explore a topic from the perspectives of from four to 13 participants, who may not all agree. The facilitator’s role is to introduce and then enforce the ground rules, pose the questions, and moderate the responses in an attempt to keep the discussion open to all participants and encourage the thorough examination of the differing perspectives. Focus group participants are expected to engage in the group process with interaction and potentially with conflict and resolution. Through this process, a focus group can produce new or valuable thoughts, mostly about attitudes and cognitive processes, challenge each other’s thinking, and illuminate conflicting opinions.

Because speaking time is shared among participants, the job of the facilitator is challenging if some of the participants tend to dominate the group while others tend to hang back. Because of the shared speaking time, it can be difficult to obtain the complexity of ideas and depth of knowledge in a focus group that can be obtained through an interview.

Focus groups can be formed from natural groups that are already gathered for some other reason. And its sole charge may be to discuss the topic question, or it may be a working group that is expected to develop a product or come to a decision.

**How-to Guide**
- **Designing the research:** With surveys, the “unit of analysis” is the survey respondent. Similarly, with interviews, the unit of analysis is the informant. With focus groups, the unit of analysis is the group, not the individuals in the group. For this reason, it is important to conduct more than one focus group for each subgroup of interest. That is, if the research question wants to explore the different attitudes of men vs. women, or seniors vs. youth, or doctors vs. nurses, it will be
important to host at least two of each group. That is, at least two groups of men and two groups of women or two groups of seniors and two groups of youth, and so on. If the purpose of the focus group is to gather feedback on alternative materials (advertising campaigns, policies, flyers, etc.) vary the order of presentation to avoid order bias.

Consider the importance of geography setting keeping in mind the impact of climate, local economic conditions, local lifestyle, local politics, local culture, and local education and literacy on your questions.

- **Size of the group:** Focus groups are most manageable with between four and 13 participants. Smaller groups are best when the topic is complex or intense so that each participant has the opportunity to develop a complex thought. Smaller groups are better if participants are topical experts so that they are not frustrated by having enough opportunity to speak. A smaller group permits a greater depth of response from each participant, but for the same reason, it runs a greater risk of being disrupted by an “expert” who may intimidate other participants and limit their responses. Generally, a small group is more sensitive to the dynamics between individuals but does not generate as many ideas as a larger group.

While larger groups may generate more ideas, they may be of lower quality. Large groups require more involvement from the moderator. They tend to be more frustrating because of the difficulty in getting a turn to speak, and when a participant finally does get a turn, they may hold the floor after they have made their point. Because of the competition for the floor, some individuals may not address the entire group at all. Large groups have a greater tendency for side conversations. Status issues are more likely to emerge in a larger group.

- **Composition of group:** focus group participants should share a common interest in the topic and feel comfortable together. Group members should be comfortable enough with each other so that they will be willing to share their opinions. If possible, avoid inviting people who see themselves as experts on the topic to a general population group (but don’t overlook those opinions which can be obtained through smaller “expert” groups or individual interviews). Depending on the study population, some of the factors that might influence participants’ willingness to express their opinions are: gender, social class, employment status, age, lifestyle, user status (users vs. developers), amount of experience, marital status, subculture (ethnicity), and people who know each other (they may have a “courtesy bias” or may respond to social pressure). Work with a community leader or “gatekeeper” to recruit participants. Make follow up/ reminder calls to ensure attendance.

- **Implementing the group:** with all methods, start by introducing yourself and explaining the purpose of the research. Explain what will be done with the information, and that responses will be kept confidential and reported as a group. Although paraphrases of individual comments may be used in the report, the speaker will not be identified. (It is important to point out to group members that they too must keep the confidentiality of the group. This is important both as a reminder to participants of their role in the confidentiality and as a warning to the participants as to the limits of the facilitator’s promise.) Review ground rules (that the purpose of a focus
group is to elicit diverse responses so disagreement is welcome, be respectful of all responses, only one person talk at a time, try to be sure all participants have a chance to speak.) Give people a chance to ask questions.

Start with a general question that is of interest to the participants and that they have in common. This question may be more interesting to participants than to the researcher. The purpose of the first question is to generate a lively discussion and break ice. Then shift to researcher’s central interests which may be more sensitive.

Use a question guide, with major topics to explore with probes for each topic. Decide which probes to use depending on the group’s response. Avoid having too many questions because that leads to pushing the group along rather than giving the group time to explore the topic. Avoid quantitative questions, factual questions, and yes/no questions (use another method for those). Eliminate any unnecessary questions.

- **Moderator requirements**: the moderator must be able to encourage participants to talk about the topic. She must be non-threatening and able to put others at ease. At the same time, she must be able to control the group and settle disruptive or dominating participants. The moderator must understand her biases. She must be enthusiastic, supportive, and nonjudgmental, and find a balance between understanding empathy and disciplined detachment. If the purpose of the group is to explore, then low involvement of the moderator is called for whereas high involvement is needed if the purpose is focus.

- **Moderator techniques**: a number of strategies are available that the moderator can use to help the group talk. Overall, the moderator should not convey the impression of being an expert and can use statements like “Explain it like you would to a five year old” or “I’m confused.” To promote interaction, the moderator can ask participants to role play or he can highlight contradictions. To encourage participants to explain further, he might simply repeat the last thing that was said, rephrase something that was said and ask for verification, or simply allow silence, resisting possible discomfort and the resulting temptation to fill the silence. It is sometimes important to ask the participants to differentiate between what they find interesting and what they think is important. If the moderator is taking notes, the silence of those moments when the typing or writing is catching up with the volley of comments can produce additional useful comments. The question guide is useful for transitions.

- **Pitfalls**: some of the challenges to a focus group are that some participants may not want to give an opinion that would be unacceptable to others in the group; some participants may attempt to dominate the groups while others may withdraw from participation. These are challenges that the moderator may be able to address. Other challenges lie with the moderator. The moderator must avoid attempting to teach, inform, or persuade participants and must be able to encourage discussion and interaction so that the focus group does not become a question and answer session. When taking notes or summarizing what the speakers have said, strive to use the words of the participant rather than "translating" into the language of the researcher or the program itself.
Appropriate audiences
Any group capable of communicating with one another and the moderator. If the participants are children, special strategies must be used to maintain focus. Participants need to be of similar status.

Staffing support roles and requirements
Recruiting and organizing the groups, selecting and securing a location, checking for and overcoming barriers to participation, arranging for payment (if any). It is beneficial if a second person is available to take notes, in addition to the moderator.

Level and type of skill required
The focus group must be conducted in a language in which the participants are fluent. It is preferable that the moderator is also fluent in this language. It is difficult, but not impossible, to conduct a focus group through a translator. The moderator must be able to identify and manage group dynamics, while also taking notes or recording the session. The moderator must be able to maintain a “safe” container for diverse opinions, draw out different perspectives, and probe for more details as appropriate. Data coding and analysis requires a different and significant set of skills.

Quality and complexity of data
Assuming good quality note-taking, the quality of the data is usually as good as the quality of the questions and moderation. Focus group data is often extensive, but may not be complex because the available talk time is divided among all focus group participants which limits the depth to which any individual may take his response.

Uses of the data, generalizability
This method can be used to expand understanding of a particular topic and explore different sides of the issue. Focus groups can help guide program development and identify community need. Focus group results may be generalizable to the population from which participants were selected, but to be confident generalizing, it is important to conduct focus groups until little new information emerges. To the extent that a focus group is dominated by one person, it is less generalizable.

Community reaction to participation
People are familiar with focus groups. They are accustomed to be paid for participation. Usually a well-respected community partner is able to recruit for a focus group.

Complexity of the process
The moderation may be complex, with the demands to solicit input from all participants, avoid domination by a few, draw out different perspectives, manage potentially charged differences in perspective, keep all participants engaged, while listening, responding, and taking notes. From the perspective of the participants, it is not complex, except possibly the challenge of getting an opportunity to speak.

Cost
Focus groups are expensive on a per-participant basis because of the expectation of payment and the researcher time involved in analysis.
Time
Focus groups usually run between 60 and 90 minutes, allowing time for an explanation and introduction. Transcription of tape-recordings is time consuming, as is the analysis of the data.

Examples
A series of focus groups was conducted with members of the Ethnic Cultural Center at the University of Washington when an imminent remodel raised the possibility of moving the Center from its off campus location to a location near the center of campus. We conducted about ten focus groups to identify the different perspectives which were starkly delineated. The focus group discussions revealed that although two clearly different views were prevalent (some wanted to keep the Center off campus where it could continue to serve as a sanctuary for students of color at the UW while others thought it was more important to move students of color into the center of campus from where they would be more able to influence campus decisions that would affect them), in fact, both arguments were important to both groups of students. The difference in how the two groups weighted the competing goals was small, but enough to tip the scale one way or the other. Because the focus group discussion was able to surface the complexity of the issue, the decision was made to keep the large Center off campus, but provide space in the Husky Union Building for a smaller “branch” office of the Ethnic Cultural Center.

Advantages
- Focus groups can clarify opinions and differences of opinions for complex issues
- The researchers are not required to understand the issues in advance
- The method allows the group to lead the discussion in new directions
- The researchers and other participants hear all the responses (except for those in side conversations). Researchers can explore a response with probes to be sure the comment was understood correctly and other participants can explore the response with their own comments.

Disadvantages
- Uneven participation among focus group members is a common problem. Even if the group does not have “dominators” and “wallflowers,” the format (sharing the 90 minutes with 7 other people) simply does not provide much time for each participant to speak.
- Participants may be reluctant to discuss their opinions about very sensitive issues in front of a group of 8 other people (+/- 5).
- The moderator should be able to speak the language of the participants. Translation is possible, but the finer points of moderation would be lost in translation.
- A group may converge prematurely on a solution or perspective if it is expressed eloquently, without adequate consideration of other perspectives.
- Both focus groups and brainstorming sessions risk devolving into “group-think” exercises where the power of the group is to enforce conformity rather than to stimulate creativity.
Mutual Interviewing

Overview
This relatively unknown method is particularly useful in communities where residents may not speak English or may be shy about speaking out in a group. At its best, mutual interviewing method is both an effective data gathering method, and a way of building community. This high-energy qualitative group method combines the interactivity of a group process with the safety and intimacy of a one-on-one interview, even while it supports the participation of between 12 and 24 people at a time. Because of the energy level this process typically generates, and the size of the group, mutual interviewing requires strong facilitation.

This method asks community members to serve as reporters. Participants divide into four equal groups. Each group is given a general topic area to report on about their community. Using an interview guide provided by the researchers (and translated if necessary), participants gather information about the topic area from other participants in the room. Each interviewer asks questions of four other participants (one from each group). Each participant has the chance to answer the questions of each group. Once the interviews have been conducted, each group reconvenes and discusses what they heard from their counterparts in the other groups, and prepares a report for the groups which others have the chance to add to in an active step which often leads to relevant new information.

This method produces several forms of data:

- The notes that participants are asked to take during their interviews and use during their analysis process
- The notes taken during each group’s discussion by the assigned note taker
- The flip charts on which each group records their summary
- Notes (or other type of recording) of the discussion that is part of the report out
- The results of the analyses of these sets of data

How-to Guide
The requirements of this method are:

- One overall facilitator and at least three assistants to support the groups by answering questions and taking notes.
- Most of the participants must be able to move from table to table.
- All participants must speak a common language, but it does not have to be a language of the researchers.
- If the common language is not the language of the researchers, the facilitator and the assistants must be bilingual in English and the group’s common language.
- If the participants are members of an underserved group, it is important to work with a trusted community organization or community member to recruit participants and support the process.
• As with any interactive method, care must be taken not to mix participants who might silence other group members, such as mixing age groups, community leaders and community members, and in some cultures, men and women.

• This method requires a minimum of eight participants (two per group) and can accommodate up to 24.

• Each group must have the same number of members. The assistants can fill in as a group member if needed.

• Researchers must identify four distinct question topics, one for each group. It is useful to provide probes to help interviewees unable to respond to the first question. The first question must be worded in a way that interviewees feel free to answer in a way that is meaningful to them, without being so open that the interviewee doesn’t know where to begin. This method relies on the interpersonal skills of the participants. Therefore, the questions should not be so directive that the interaction is reduces to an in-person survey. Participants must be encouraged to draw out the interviewees' perspectives using their own conversational strategies and supported by the interview questions and probes.

• The space must be big enough for participants to pair up and spread out for their interviews, and enable small groups to hear one another.

• The activity is easiest if groups have a table to sit around.

The steps to implement this method are:

1. Divide participants into four groups of equal sizes, preferably around a table. Make sure each table has an assistant facilitator.

2. Provide each group with clipboards and interview sheets, each with a primary question and a few potential follow-up questions to help the interviewee respond. The clipboards should be preloaded with five copies of the same interview sheet.

3. Set participants at ease, and ensure that all can hear and listen to the instructions. Explain that they are reporters, that the interview sheet tells them their topic is (and questions), and that the other people in the room will give them the information they’ll need for their report.

4. Tell participants to practice by interviewing the person next to them, and being interviewed by them. Allow them 5 minutes for each person to complete the interview. Then if the schedule allows it, have the assistant facilitators lead a discussion at each table about the questions: How did it go? Did they have any questions? The facilitator may invite participants to decide which questions they will prioritize.

5. Start the data collection. Remind people to take as thorough notes as they can. Remind them to “dig” and to ask follow up questions until they feel like they understand the other person’s perspectives. Pair up group 1 with group 2, and group 3 with group 4. Give each person 5 minutes to ask all the interview questions. Use a noise maker (often a bell) to get their attention when it’s time to switch so the other person has a turn. We find it is best if they return to their initial table after each round.
6. When they are back at their initial table, ask participants to use a few minutes to write down anything they heard but haven’t written down yet. (Or get the assistant facilitator to write it down for them.) Then send them to their next pairing (group 1 with group 3, and group 2 with group 4). Five minutes for each interview.

7. Send them back to their original groups with the same instructions about making notes.

8. Pair different tables (group 1 with group 4, and group 2 with group 3). Five minutes for each question.

9. Send them back to their original groups and tables. Now they will do their final interview with someone at their table. (If they seem too tired, this can be converted to a table discussion instead, facilitated by the assistant facilitator.)

10. Now it is time for them to start discussing what they heard and what they will report out. It is very important that the assistant facilitator for each group take very thorough notes at this time to record the discussion of what was heard in their interviews. (Resist strong temptation for the assistant facilitator to do the writing on the flipchart. Have another group member serve in that capacity so the assistant facilitator can take notes.)

11. Each group reports out. Be sure to ask the audience to add anything they think is missing.

### Appropriate audiences
Any group that is comfortable moving around and can communicate easily among themselves, including discussing questions that may be complex themselves or may elicit complex responses. The participant must be able to record the responses – either by taking thorough notes, or by using an audio recorder, or by getting the help of a scribe who is able to take thorough notes. Participants need to be of similar status.

### Staffing support roles and requirements
Recruiting and organizing the groups, selecting and securing a location, checking for and overcoming barriers to participation, arranging for payment (if any), supplying flip charts, and translated question guides.

### Level and type of skill required
Question development is crucial and difficult. The group itself must be conducted in a language in which all the participants are fluent. It is preferable but not necessary that the participants are all literate. The written questions must be translated into the language of the participants. When the data are received, the written responses must be translated into English. The facilitator must speak the language of the participants as well as English and must be able to command the attention of the participants. If the facilitator is a community member, they must be trained as to how to facilitate the event. Individual training is best. The facilitator should recruit three additional bilingual assistants to staff each table during the discussion portion of the activity. They must be able to understand the language of the participants and English. They must be able to work with other group members, discuss their group’s question, ensure that group members understand what they need to do, and demonstrate how to draw...
out information in a brief interview. They must be able to take notes in at least one of the languages. Data coding and analysis requires a different set of skills.

**Quality and complexity of data**
Quality of the data varies and depends on the ability and willingness of the participants to take notes during their interviews, the ability of the assistants to take notes during the analysis and discussion portion of the activity, and the ability of the discussants to understand and incorporate the diverse points of the others in the room. This data may be extensive, but may not be overly complex.

**Uses of the data, generalizability**
This method can be used to expand understanding of a particular topic and explore different sides of the issue. Mutual interviewing can help guide program development and identify community needs. It can be particularly useful when the topic is both complex and sensitive. Results may be generalizable to the population from which participants were selected.

**Community reaction to participation**
People are surprised by the method. They usually feel a little confused and insecure at the beginning but increasingly engaged, animated, comfortable, and confident as the process continues. It seems to build a sense of community. People usually leave energized.

**Complexity of the process**
The process is complex. It is new to most people, they are required to move around, find people to talk to, and take notes. If they are not literate, it adds a layer of complexity in that they either have to remember the questions and the answers until someone can write the answers down for them, or a scribe needs to accompany them. If the participants do not share a common language, or if they don’t all speak the language of the facilitator, or if the facilitator is unable to command the attention of the participants, the method is very difficult to implement. If people do speak the same language as each other and the facilitator, other problems seem to be overcome.

**Cost**
Mutual interviewing groups are expensive on a per-participant basis because of the expectation of payment or some gift of appreciation, and the researcher time involved in analysis.

**Time**
Mutual interviewing groups usually run between 60 and 90 minutes, allowing time for a meal and an explanation and introduction.

**Examples**
This method was used by the City of Seattle Department of Information Technology to supplement data on community engagement and the digital divide gathered via 1000 telephone surveys with Seattle residents. Ten mutual interviewing groups were assembled with residents from seven underserved ethnic groups (Hispanic, Chinese, Vietnamese, Korean, Filipino, Somali, and African American), and with a group of graduate students who were primarily cell phone only users. Most of the Spanish, Chinese, Vietnamese, Korean, and Somali participants did not speak English.
Most of the participants in one of the groups were unable to read or write in any language. This was a surprise to the researchers, however, because of the rapport that had been established, this challenge was readily overcome by literate participants who stepped forward to support their neighbors. Most of the groups, including the one with illiterate participants, were dynamic; participants were engaged; and rich information was gathered from communities that had not been well understood by the Department of Information Technology. They were able to use this information for planning and grant applications for several years.

Mutual Interviewing was later used as a primary method by the Seattle Public Utility and the Local Hazardous Waste Management Program in King County to gather information from three underserved ethnic groups (Hispanic, Chinese, and Vietnamese) about community concerns and community engagement. (For a copy of the report, contact the LHWMP library at 206-263-3050.)

**Advantages**

- This method is efficient. Perspectives of up to 24 people can be gathered in one group process.
- Participants are more comfortable than in more traditional focus groups because they are interviewed by a member of their own community, in their own language.
- Because this method is based on a series of simultaneous one-on-one interviews, each person has many opportunities to develop and express his or her opinion compared to a traditional focus group. (More than 20 minutes per person for each of 24 people, compared with about 10 minutes per person for 7 people in traditional focus groups – often dominated by one or two people.)
- Because of the one-on-one interview method, participants have a high degree of privacy in that they are required to express it to only one person, rather than to the entire group, as in a traditional focus group format. Because of this approach, “group-think” is not possible.
- This method obviates the challenge of uneven contributions among the participants that is common to traditional focus groups. All participants are asked to address each question; no participant has the chance to dominate the findings.
- Interviewers are encouraged to “dig” with the interviewee without following a script to get a thorough understanding of the interviewee’s perspective.
- Because this method uses open questions, participants have more opportunity to find ways that are meaningful to them to answer the questions, yielding a better understanding of the community.
- It is a robust and resilient method in that participants tend to be engaged enough to step up and help solve problems such as supporting others who cannot read or write or including an interview partner who is not able to move easily.
- When this method is done well, it is also a community-building activity and it helps build bridges between the community and the sponsoring agency. (No one leaves a focus group saying “thank you for listening.” Responses of that sort are typical after an evening of mutual interviewing.)
- Once participants understand the process, they often find it fun and feel successful.
Disadvantages

- The process is unusual, and can be confusing, hard to explain, and loud.
- It is not possible to incorporate late-comers, and there should be four equal-sized groups.
- At first, some people feel uncomfortable because they do not initially understand what is expected of them. They seem afraid that they will make a mistake.
- Most participants should be strangers to one another or of comparable rank or status so that when they interview one another, both members of all dyads are free to express their true responses.
- Questions must be very carefully crafted -- with enough structure that interviewees have a way to begin, but with an openness that encourages interviewees to respond with whatever aspect of that topic is important to them.
- Research is limited to four topic areas and researchers must exercise discipline to avoid overloading questions and thereby overloading participants.
- The interviewers and note-takers are not well-trained professionals. Accordingly, the quality of the data available to the researchers from the notes of the interviewers is limited both by the interviewers’ skills at note-taking, and at “digging” for a thorough response. In a traditional focus group, the professional facilitator may be more able to probe for additional information, and the participants’ comments may be recorded or a note-taker is assigned who is able to record most of the comments made by the participants. This solution can also be used in this method.

Nominal Group Technique

Overview
Nominal Group Technique takes advantage of group interactions and creativity, while overcoming some of the difficulties of focus groups and brainstorming sessions by removing the group dynamics. It provides time for participants to reflect on the probe question privately without being influenced by other participants; participants offer one response at a time so it becomes difficult for individuals to dominate and wallflowers are expected to contribute in their turn; and participants can stimulate new ideas in one another.

How-to guide

- **Preparation:** materials needed include flip chart paper and markers, table and chairs, pen and paper for participants. If the group is large (more than 10 people), it can be divided in two with each group run separately. As with other group methods, the NGT needs a respectful, criticism-free atmosphere.

Arrange the chairs in a U shape with the flip chart and facilitator/scribe in the opening. The method allows one very clearly written, very open probe question. The question should be prepared and pre-tested. It might be “What would improve this program?” “What does your community need?” “What is your community proud of?” “What does your community care about?”
• **Participants:** participants should be interested in the problem, able to explain their idea or point of view, and able to consider new ideas. This method does not require strong facilitation skills. The leader/scribe can be selected from the group and able to ensure that the process is implemented correctly.

• **Implementation:** After explaining the reason for the research, how the information will be used, how confidentiality will be maintained, and questions are answered, the leader/scribe posts the probe question and lets the participants know that they have 5 minutes to write down as many answers as they can think of to this question, letting participants know that the research team will collect their lists at the end of the session. Then the leader/scribe goes around the room asking each participant to read one response from their list. The goal is to get all the items from the individual sheets onto the flip chart so it is not necessary for people to repeat responses that were already given. This process is repeated until all lists are exhausted. Those who run out of responses early can pass on the later rounds. “Hitchhiking” (a new idea stimulated by another’s response during the response portion) is encouraged. After all the responses are exhausted, review them in preparation for the prioritization process which will be done by voting. (This can be done by blind hand-raising, written ballots, dots, or some other secret method.) Thus the role of the leader/scribe is to:
  - Present the probe question and time the 5 minutes for reflection and writing
  - list the responses given (without repeating them),
  - ensure that all participants get a turn to talk,
  - ensure that participants give only one response per turn,
  - delay discussion and conversation until after all the ideas are listed
  - review each response and ask if anyone needs clarification
  - manage the vote. This process often stimulates further discussion and brainstorming because participants often want to discuss, combine, and otherwise build on responses. Sometimes this process works well if there are two votes with a discussion between them.

**Appropriate audiences**

Any group that can remain quiet for 5 minutes. It is very helpful if participants can read and write, but if they cannot, a scribe can be engaged. Participants should be of similar status.

**Staffing support roles and requirements**

Recruiting and organizing the groups, selecting and securing a location, checking for and overcoming barriers to participation, arranging for payment (if any), supplying flip chart, note pads, pens, and dots.

**Level and type of skill required**

The probe question is critically important and must be developed in advance. The facilitator needs little training - only to track the time, and then to scribe the contributions on the flip chart. The facilitator may also need to remind participants to make only one contribution at a time. After all the contributions have been recorded, the facilitator may be called on to combine contributions. During that process she must be able to manage the group. Then she must be able to manage the voting process. A discussion may ensue and that can be rich. It is a good time to take notes.
Quality and complexity of data
If the probe question is good, data quality is high and already organized by the process.

Uses of the data, generalizability
This method can be used to expand understanding of a particular topic and explore different sides of a single issue. NGT can help guide program development and identify community needs, strengths, interests, or ideas. Results may be generalizable to the population from which participants were selected, and with more confidence as more groups are conducted.

Community reaction to participation
This method is usually new to most people. People seem to be engaged and strive to offer more ideas. After the initial process, they seem interested in discussing them more fully, so this method can be very useful to introduce a focus group or mutual interviewing group.

Complexity of the process
The process is simple. The hardest part is developing a good probe question. If the group is too large, it can be broken in two and a participant can be recruited to serve as the facilitator for one of the groups.

Cost
These groups are inexpensive unless people expect payment.

Time
This process usually takes 30-45 minutes.

Examples
The U.S. Department of Defense funded a project targeting immigrants from specific countries who would be willing to work in national security after completing a training program to improve their English language skills. We knew the participants had concerns about the program. We wanted to be sure to gain a complete understanding of the issues and we were concerned that if the group became focused on examples and venting, we might run out of time before getting a thorough picture. So we used a Nominal Group Technique asking participants to write down all the responses they could think of to the question “What are the most important questions we should ask about this program?” This allowed them to put their concerns in the form of a question. We asked them to prioritize this list of questions and we used the highest priority questions that could be asked meaningfully in a mutual interviewing process to surface the most compelling stories and details. In this way, we were able to cover the breadth of the program’s challenges and report in depth on the issues that seemed to be important and complex.

Advantages
- This technique is good for identifying elements of a problem situation, a solution, or consensus building (establish priorities where judgments of several individuals must be aggregated into a group decision)
- This technique benefits from the creativity of a group process while ensuring that all participants are heard
Dominant participants/experts are limited to one response at a time so other people have the opportunity to participate.

Reluctant participants are required to produce something so everyone’s perspective is included.

- It allows a balance between the group process and individual time to reflect. Sometimes it is difficult to be aware of (and remember) one’s own perspective when listening to the perspectives of others in a group. Because of the time to reflect and write down responses independently, this technique is less likely to result in “group think” or premature focusing on a single idea.
- Even if a participant decides not to read all the items on his list, since they are given to the facilitator at the end of the session, they can be included in the report.
- Because responses are written down and later clarified if necessary, each idea enjoys increased attention and participants have a better chance of being understood.
- It can lead to brainstorming afterwards and by that time, the idea is usually separated from the person who verbalized it, further reducing some of potentially difficult group dynamics.
- The process can produce an action plan.

**Disadvantages**

- This method allows only one question, so it must be worthy.
- Participants who are accustomed to providing detailed explanations of their ideas may find it difficult to adapt to the brief response format of this method.
- If the group is larger than 10 people, the process can become tediously long. (If necessary, groups can be split up and run simultaneously. This opens the possibility of exploring a second question.)
Community Based Strategies

Asset-Based Community Development (ABCD)

Overview
The Asset-Based Community Development (ABCD) strategy for community facilitation and empowerment is a very different approach from most others in its strong emphasis on building on the assets of communities – including communities which are typically considered impoverished and in need of “services” – rather than to emphasize what is “wrong” with communities and individuals.

Originally conceived and developed in the 1980s by John McKnight and his partners (particularly John Kretzmann) at what has become the Asset-Based Community Development Institute in Illinois, this movement has had considerable influence nationally and internationally, including the development of tools for community cooperation and information seeking that are well worth considering as part of this toolkit.

The “We Can” Game for exploring the “gifts and capacities” of communities, individuals and organizations is a recent product from Cormac Russell of ABCD Europe for actively gathering information in communities. This new tool is being discussed as innovative and useful for:

- jump-starting a “different kind of conversation” in communities,
- reconfiguring the relationship between government and communities, and
- changing the ways communities think about themselves.

A general overview of the Asset-Based approach can be found at [http://www.abcdinstitute.org](http://www.abcdinstitute.org). The most influential and widely-read statement of this work is McKnight and Kretzmann’s Building Communities from the Inside Out: A Path Toward Finding and Mobilizing a Community’s Assets (1993).

A recent statement of this work in a community and broader organizational context is Duncan’s “The Classic Duo: Accountability and Community Development Can Help Unlock an Abundance of Resources” ([Public Management](http://www.publicmanagement.org), Nov. 1, 2012)

Russell’s “We Can” tools, mentioned above, are available for downloading as three PDFs at [http://inclusionnetwork.ning.com/profiles/blogs/the-we-can-game-a-free-download-to-explore-gifts-and-capacities-w](http://inclusionnetwork.ning.com/profiles/blogs/the-we-can-game-a-free-download-to-explore-gifts-and-capacities-w)

How-to guide
Briefly, the We Can game can be played by small or large gatherings of people, broken down into groups of about 10 each, who use specially developed decks of 100 cards each representing a potential community need, such as roofing repair, care for sick people, make a budget, organize a party, fund raise, bake, or community outreach (see PDFs, above) to consider whether various tasks that need to be accomplished in a community are best done by “us” (alone), by another person or entity, or jointly by us and others.
The sessions can last for 30 minutes, or hours. Once participants get rolling, it is sometimes difficult to get them to stop. Well facilitated, the wide variety of “things to be done” seems typically to encourage animated conversation and wide participation, to enable people to focus on what they are able to do rather than their incapacities, and to lead to sustained, mutually-respectful partnerships.

The topics of the cards have been honed through experience within ABCD and through earlier iterations of the game itself. Those who adopt the method are encouraged to invent their own additional or substitute topics (e.g., deal with hazardous waste, keep local traditions alive) and to translate the materials into other languages.

**Example**

In a community meeting in Chicago in the summer of 2011, dozens of highly diverse people from throughout the world gathered to consider approaches to “problem solving” at the community level. After a brief introduction, even though their communities and the issues they were facing varied dramatically, the *We Can* game enabled this group to discover and discuss their shared interests, and to develop and build upon strategies for engaging their local communities. The richness of the conversations and the information obtained by participants and researchers led to further development of the *We Can* approach. Additional gatherings of similarly diverse groups using evolving forms of the *We Can* game have since occurred in many countries, resulting each time in enthusiastic participants fully engaged in community problem solving.

**Matrix Ranking Tool**

**Overview**

This method is similar in that it engages a large community group and calls on community assets and problem-solving ability, but it is different in that it starts with community challenges. This method brainstorms multiple solutions and refines solutions to identify steps toward the solution that community members can make on their own, and steps that require governmental assistance.

**How-to guide**

Materials needed

- flip charts
- pens
- butcher paper
- voting chips, dots (about 15 per person)

How to carry out the process

- In a community gathering, identify challenges facing the community. (This can be done through a brainstorming activity, a nominal group technique (detailed elsewhere in this toolbox), or from a preexisting needs assessment.)
- “Sort” the challenges into meaningful sets
- Community members will assign themselves to one of the sets of challenges.
• Use a long piece of butcher paper and draw a matrix with room for many columns.
• Select 3 or 4 challenges from each group’s set and write each one on its own row in the matrix.
• Brainstorm solutions, taking the challenges one at a time. Create two columns for each solution.
  o In one column, write what (if anything) the community can do to move that solution forward
  o In the other column, write what (if anything) the government must do to move that solution forward.
• When all the solutions have been generated, considering all as potential solutions for the range of problems described, participants use their 15 chips to vote on the solutions, one problem at a time.
• The resulting prioritizing of solutions points to community-generated actions to be taken both by the community and by the government. Experienced users of this method report that the same solution will often cut across multiple challenges, suggesting that this method will surface “root” solutions to be implemented before others can be effective.

Brainstorming and prioritization sessions should be recorded either with a video recorder or by thorough notes, as should each group’s discussion of challenges and solutions.

The data derived from this process will be captured in the brainstorming or NGT products, in the matrices, and in the notes or recordings.

**Examples**

This process has been used in Sudan and Cambodia with large groups to prepare citizens to participate in a town meeting with political leaders.

**Advantages**

• Rich conversations in which many people participate, and want to be involved
• Sets a positive “tone” for the relationship between communities and governments, and for ongoing partnerships as appropriate
• Yields a wide set of information about communities, from the perspective of the community.
• Enhances communities’ sense of its own efficacy, and ability to act on their own behalf in the future

**Disadvantages**

• Resisted by some organizations as being too “casual” to be worthwhile
• Requires preparation of materials, and some (minor) level of training
• Has to be processed in detail after the session if the rich materials are to be fully captured
• Requires follow through by the sponsoring organization
References


