

METHODS FOR CONDUCTING EDUCATIONAL NEEDS ASSESSMENT

Guidelines for Extension Professionals

UNIVERSITY OF IDAHO EXTENSION

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Introduction

What is a needs assessment and why conduct one?

A needs assessment is a systematic approach to studying the state of knowledge, ability, interest, or attitude of a defined audience or group. Extension professionals use needs assessment to learn about important issues and problems faced by our public, in order to design effective educational programs. Programs and products that specifically target documented needs are inherently effective and marketable. Needs assessment also provides a method to learn about what has already been done and what gaps in learning remain. This allows the educator to make informed decisions about needed investments, thereby extending the reach and impact of educational programming.

For Extension, the goals of needs assessment are nearly always the same. The first goal is to learn what our audience already knows and thinks, so that we can determine what educational products and services are needed. A second goal of the needs assessment is to understand what we can do to make our educational products more accessible, acceptable, and useful to our clientele.

A needs assessment, thoughtfully performed, provides the following:

1. Insights about how education and training can impact your audience;
2. Knowledge about the various approaches that could be most effective;
3. Awareness of existing programs and of gaps in available training, to enable efficient use of resources;
4. Information about the current situation that can be used to document outcomes;

5. Knowledge about the potential demand for various programs and products;
6. Credibility that the program is serving the target audience, often communicating greater competence and professionalism to funding authorities.

A needs assessment is conducted so the target audience can verify its own level of knowledge and skill, its interests and opinions, or its learning habits and preferences. Collecting and analyzing needs assessment data allows the investigator to describe the “gap” between what exists and what is needed. Filling that gap becomes the purpose of the next generation of educational services and products.

Direct and indirect assessments

A direct needs assessment is accomplished through formal research that gathers data from clientele. An indirect approach is to use secondary data or to ask surrogates (advisors) for their opinions about priority needs and issues. The direct assessment will result in data that is more specific to the needs of individuals, and it can be quantitative in terms of probability and confidence. However, direct research requires considerably more resources to design and also requires institutional approval to conduct. Direct assessment should be conducted periodically for major program efforts. An indirect assessment can be conducted at any time when an advisory committee is meeting, and does not require the same level of investment in the design, implementation, and analysis. However, even for a non formal assessment, if the results are to be credible, procedures must be followed and findings must be carefully documented.

Comprehensive needs assessment research helps document actual problems and deficiencies. With the needs assessment in hand, an educator can 1) verify and describe the current situation, 2) explain how the program will address that need, and 3) describe the expected impacts of the program (i.e., build a logic model). Educators also can demonstrate the basis for their model when they request support from potential partners or funders. Because most funding sources insist that a project is evaluated, the information in a needs assessment forms the basis for a program evaluation. When the intervention results in measurable change, project managers will know whether they have succeeded or know what steps need to be taken next.

While the goals for needs assessments are similar, the purposes to conduct needs assessment vary, and will influence how the project is approached. Extension is required by statute to consider stakeholder input as part of the design and delivery of programs. There are also contractual agreements between State and local governments that Extension addresses locally relevant issues. Granting agencies and organizations may require needs assessment as a term of performance. Because of these legal and contractual purposes for needs assessment, the procedures need to be valid and the results verifiable.

Needs assessments are also conducted simply to generate better knowledge with which to make decisions. If better information is the sole purpose for conducting a needs assessment, the procedures may be less formal, although the steps to plan, gather, and analyze data are still relevant.

Steps in conducting a needs assessment

The first step to conducting a needs assessment is to develop a plan. The assessment plan begins as a description of the what, when, who, how, and why of your project. This description becomes a plan for designing, conducting, and evaluating a needs assessment. The components of a needs assessment plan include:

1. **Objectives:** What is it that you want to learn from the needs assessment?
2. **Audience:** Who is the target audience? Whose needs are you measuring and who will give you the required information?
3. **Data Collection:** How will you collect the data that will tell you what you need to know? Will you collect data directly from the target audience or indirectly?
4. **Sampling Procedure:** How will you select a sample of respondents who represent the target audience?
5. **Techniques:** What instruments and techniques will you use to collect data?
6. **Analysis:** How will you analyze the data you collect?
7. **Follow-up:** What will you do with the information that you gain? Data gathering methods by themselves are not a needs assessment. For the process to be complete, the needs assessment process has to result in decision-making.

Institutional Approval is required for any direct human research at the University of Idaho (or any other entity that receives funding from the Federal government). Consequently, approval must be obtained before conducting direct needs assessment research. Indirect research (using secondary data or data that already exists) is not subject to institutional approval, and meetings or discussions asking for ideas from advisory committees are not research activities, thus are not subject to approval.

At the University of Idaho, the Institutional Review is conducted by the Human Assurances Committee (HAC). Once you have completed your assessment plan and have drafted your instrument, you must complete the Human Subjects Review form and submit that form to the HAC. Depending on the nature of your research, you may also be required to complete an online course sponsored by National Institutes of Health or you may be required to submit your study plan and your proposed instrument. You will need to allow six weeks for committee approval of your proposal. In nearly all cases, your proposed research methods (for a needs assessment) will be determined to be either: 1) exempt from HHS regulations for the protection of human subjects, or 2) qualified for expedited review by the HAC. Procedures for HAC approval are found at <http://www.uro.uidaho.edu/hac>.

Objectives of the needs assessment

The various objectives of a needs assessment are based on two things: who is asking the questions (what is your mission and responsibility?) and who is the target audience. The objectives will dictate how the needs assessment is to be designed and conducted.

Needs assessment can either document the current situation for a *group* or for a *target population*. A needs assessment is often conducted for a specific group, organization, or business in order to improve effectiveness or productivity of the group, related to its mission. The objectives for the assessment are related to the objectives of the

organization. For a company, organizational assessments are a process to learn how to close a training or performance gap.¹ For example, a business might be looking for ways to improve customer service and the target audience is the employees and customers of the business. Other examples of an organizational needs assessment might include a school district investigating the most efficient use of available teachers, or a volunteer organization trying to decide which fund raising project to conduct next. In these examples, the target audiences (those who will be providing the data) are teachers and/or parents/students in the district and the membership of the service organization. Extension professionals may have opportunities to help organizations assess their needs, and would follow essentially the same planning steps as for a target population.

When a needs assessment is conducted on behalf of the public (for the benefit of multiple individuals, but not a specific group), then the objectives tend to focus on what is needed to improve the situation for individuals, through changing knowledge, behavior, and conditions. A comprehensive needs assessment for such an audience should include objectives similar to those of a market analysis. In other words, it may not be enough to learn your audience's needs if they are not interested in your resulting solution. The effort must also determine what services and products will appeal to the audience.

The objectives of a needs assessment for a target population, then, are not limited to information about their existing knowledge and skills. Objectives may also require an investigation into the audience's perceived solutions, as well as their priorities and their preferences. If you only ask stakeholders what are their problems, it falls to you to determine what kinds of education will help address those problems. The limitation with this approach is that the intervention you design may not be marketable to your audience. If you ask stakeholders only what they want, you may have insufficient information with which to address the problems that need solving. For most of Extension's purposes, the needs assessment should be a systematic and comprehensive approach that reveals both the problems and the perceived solutions, and allows the investigator to design a program that connects the current situation to the desired future.

A **Community Needs Assessment** is a specific application for a targeted population that has recurring value for Extension. Some useful tools for working with community members to conduct needs assessments can be found on the web.² Dozens of other guides and resources are available on the web to guide the conduct of specific needs assessments for public and community health issues, public housing needs, community conservation and environmental protection needs, and much more.

Describing the Target Audience

The target audience refers to those people whose needs you are trying to measure. For all target audiences it is important to know the size of the population. For a study focusing on the needs of an organization or group, a description of the target audience may include the various categories of employees, customers, or members; including their reasons to belong to the group, the length of time of their association, their geographic or organizational distribution, what they contribute to or receive from the group, cultural characteristics or biases, and age, sex, ethnicity, and other demographic characteristics. A careful and thorough description of the target audience leads to a more reliable sampling design and a

more useful data set to be derived from your assessment. In many cases, the needs assessment can be used to validate or refute any preconceived notions of the audience.

An important aspect of describing the target audience is to research and describe the relationship between your audience and the issue or topic of the assessment. It is valuable to learn what the audience already knows or believes about the topic and what other efforts may have been mounted to address deficiencies. A reasonable investment to review the results from a previous needs assessment, to investigate previous training delivered by other providers, or to study other sources of data will greatly enhance the quality of your own study design. For these reasons, it may be useful to think of a broad-based needs assessment as a group of more targeted assessments. In other words, if you are planning to survey the public about their perceptions of diverse issues ranging from child care to water quality, you might consider proceeding as though you will be bundling several needs assessments together in a single operation.

Methods for Collecting Data

There are quite a number of ways to collect data for a needs assessment. The following pages describe a small number of basic methods to collect data. The principles outlined for these basic methods are directly transferable or adaptable to many of the other methods that have been used to conduct needs assessments. The descriptions that follow include:

- Surveys
- Focus Groups
- Interviews
- Group Process

Other options to gather needs assessment data include observation, testing, and analysis of existing data.

Sampling Procedure

An important step in the needs assessment process is to determine whether you will collect data from the entire population or whether you select a sample to represent the population. If your target audience is relatively small (say, the population of 80 adult 4-H volunteer leaders in a county), then it makes sense to survey the entire population, because a statistically-valid sample would require nearly the entire population anyway, and there is little economy gained by sampling. For questionnaires and surveys handed out at a program, or when testing is used to assess the needs of a group, it is common to collect data from the entire population. The advantage to measuring the whole population is that it is not necessary to use statistics to verify that the data is representative.

For large populations, sampling is a practical alternative to reduce costs. If sampling is indicated, then selecting a sample that is representative of the whole population is crucial. For telephone or mail surveys, random mailing lists and phone lists are available for purchase from private companies. Alternatively, a number of methods can be devised to select a random sample from a phone book or other listing of the entire population.

Sample Size and Sample Design

The number of respondents that need to provide data will depend on the size of the entire population and on the level of confidence you want to have in your results (Table 1). Remember that the recommended sample size is based on the number of returned surveys from a random sample, not on the number of surveys that you send out to the public. The Social Science Research Unit (within CALS) is a self-supporting (fee-for-service) source of expertise and assistance for creating and conducting surveys.

When sampling your population, the rate of responses achieved becomes very important. Although there is no absolute rate of response necessary for any given instrument, rates less than 100% introduce the potential for bias; that non-responders have different characteristics than those who chose to submit data for your project. For response rates below 50%, the risk of bias compromises statistical integrity. For surveys conducted as part of Federal grants, agencies are seeking 75% or greater response rates.

Table 1. Number of returned, useable surveys needed, based on the size of the target population, and on confidence level and confidence interval desired.

		Size of Target Population							
		100	1,000	5,000	10,000	50,000	100,000		
Confidence interval	+/- 4%	Confidence Level	90%	81	298	392	408	422	424
		95%	86	375	536	566	593	597	
		99%	91	509	859	939	1016	1026	
	+/- 5%	Confidence Level	90%	73	214	258	265	271	272
		95%	79	278	357	370	381	383	
		99%	87	399	586	622	655	659	

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Sample design can range from simple to highly complex. The simplest case is a completely randomized design where every member of the population has the same likelihood of being included in the sample. However, certain kinds of comparisons can be more expensive using the completely randomized design. For example, you may want to know how the needs of people living in town differ from those living out of town, but only 20 percent of the people live in town. In order to generate reliable data for town residents, you would need to increase the size of your random sample five-fold. However, by stratifying

your sample into town residents and rural residents, you would only need to increase the size of the town sample, but not the rural sample. In this example, assuming a county with a population of 50,000 (about 10,000 live in town), it would require 2,040 returned samples to be able to compare town vs. rural residents (at 90% confidence +/-4%) in a completely randomized design, but only 830 returned samples if the sample were stratified (408 in town, plus 422 rural).

It is important to note that stratifying your sample also can introduce bias into your interpretations. In the above example, you want to know how far the average county resident commutes so you ask your sample how far they drive to work. However, because you stratified your sample, you cannot simply average the responses across the county. Instead, your analyses must take into account that town residents are over-represented in your sample (by 4-times); and you would need to weight your results accordingly. As a rule of thumb, design-based weights usually reflect the probability of selecting that characteristic in a random sample.

Other examples of ways you may wish to stratify your sample might include agricultural producers with irrigation vs. those who only farm dry land; households with minor children vs. those without minor children in the household; or workers with employer-supported health insurance vs. those without. There are dozens of ways you may wish to stratify your sampling design, based on the kinds of information you seek and what you wish to do with that information. The first step in determining the appropriate design is to be very deliberate about your information needs and what you will do with the information after you receive it. The next step is to gather some information about your population and sub-populations. Only then can you determine which sampling design will provide the required information for least cost.

Attributes of Surveys

Written surveys and questionnaires

Surveys may be conducted by mail, by email, or using a web-page. They also may be used to gather data from a group of individuals in attendance at an event. Surveys are useful tools to gather information for your needs assessment when your goals require:

1. A cost effective method to collect responses from a large number of individuals;
2. A method to collect responses to a fairly large number of specific questions;
3. A method to reach either random respondents or respondents who are unknown to the investigator;
4. Data that is easy to summarize and report;
5. Results that can be evaluated through the application of statistical measures;
6. A method that allows a degree of anonymity for respondents, presumably resulting in more candid responses;
7. A formal process with a permanent record of stakeholder input.

Surveys may have some shortcomings when your interests include:

1. Gathering information in an unstructured manner, such as open-ended questions;

2. Gaining insights and details from your respondents beyond those specific questions articulated in the questionnaire;
3. Collaboration and dialogue among respondents;
4. Achieving a high rate of response may require a significantly larger investment for written surveys.

Oral surveys and telephone surveys

An oral survey is similar to a written survey in that a survey instrument (questionnaire) is first prepared. However, for oral surveys, the questions are read to the respondent in-person or over the phone, and the answers are recorded by the interviewer.

In addition to the attributes for written surveys, telephone and in-person oral surveys have added benefits including:

1. Trained volunteers can reach a large number of people at relatively low cost (depending on the length of the survey).
2. Very high rates of return (completed surveys per stakeholder surveyed).
3. Responses can be entered directly into the database by the interviewer (especially for telephone surveys).
4. Opportunity exists for the interviewer to note emphasis or additional information offered by the respondent.
5. Respondents have opportunity to ask for clarification.
6. Many people express themselves better orally than in writing.
7. Oral surveys are not as strongly biased when audiences have mixed literacy skills.

Oral surveys may have some additional shortcomings including:

1. The opportunity for the interviewer to influence responses or to introduce bias.
2. A tendency for respondents to tell personal stories or to vent about an issue.
3. It is difficult to gather insights and details from your respondents beyond those inquiries articulated in the questionnaire.
4. Answers to open-ended questions are very difficult to record and analyze;
5. Too many answer categories or choices are difficult for the respondent to remember during an oral survey; true/false and yes/no questions are ideal.
6. Collaboration and dialogue among respondents does not occur.

Survey Procedures

The following outline describes those considerations important in the creation, administration, and analysis of a survey. For more complete thoughts and procedures, see Salant and Dillman.³

Creating your survey instrument

1. Identify the audience from whom you wish to gather information. Be as specific as necessary, sufficient that you can describe in detail how you will know that you have reached that target population.
2. Make a list of the specific information that you wish to learn. Restrict your list by including only information that you know you will use. Refrain from asking questions in areas that you cannot impact or asking questions because it “would be good information to know.”

3. In most cases, the number of people who respond to your survey will be inversely proportional to the length and complexity of the instrument. For a high rate of response, keep your list short and clear.
4. Construct questions in similar formats so the sentence structure is the same for a series of questions. For example, begin a series of questions with the same phrase such as: "which of the following products and services have you used?" or, "how often do you think about the following issues?"
5. Organize your instrument around those groups of similar questions. This allows the respondent to get in a rhythm when answering, and provides better data because the respondent is not constantly changing gears.
6. Build your response categories so that they appear in the same order throughout the survey. For example, array your response categories so that highest to lowest are always presented from left to right across the page.
7. Open-ended questions (the respondent writes out an answer in a blank space) are easy to ask and difficult to analyze. It is much easier to collect and analyze data when respondents choose a specific answer (closed-ended; includes yes/no questions, multiple choice, likert scales, etc.). For example, If you want to know how much time people spend reading each day, try to give them categories to select (less than 30 minutes, 30-60 minutes, etc.).
8. If open ended questions are important for your assessment, data can be sorted and compiled into response categories and subcategories generated using open, axial, and selective coding techniques commonly used to analyze qualitative data.⁴
9. Write clear and concise instructions for each set of similar questions, and for individual questions as needed. When the respondent is given a list of items to choose from, be sure to indicate when you are seeking one or multiple answers. Note that it will always be easier to interpret data when only one answer per question is permitted.
10. Different questions reasonably can be expected to produce highly correlated responses. For example, a person who has strong concerns about juvenile delinquency seems more likely to be interested in after school programs. For the sake of brevity, you should be conservative about asking highly correlated questions, unless you have specific needs to drill down into a topic. When it is desirable to ask closely related questions, group and format questions to optimize efficiency for both the respondent and the analyst.
11. Highly correlated (paired) questions can be used to validate the quality of a person's responses. However, it is not recommended to lengthen the survey unnecessarily, and paired questions should be re-worded to avoid offending your respondents.
12. Do not use open-ended questions to answer an "information need" (from your list in "b" above). Open-ended questions should be reserved for suggestive data and explanatory information, as statistical analysis is compromised.
13. Be sure to include a limited number of questions to help you understand your audience. Common questions may include age categories, sex, and educational attainment. Be aware, however, that comparing responses between demographic groups may require a more complex sampling design (see previous discussion). For example, if you want to analyze how men respond differently from women, you may need to increase the number of completed surveys required.

14. Answers to demographic questions can also be highly correlated (e.g., education and income level) and asking about both characteristics may lengthen your survey without adding value.

Tips on writing questions

1. Be clear and to the point. Questions should be fewer than 20 words.
2. Check your grammar, punctuation, and spelling carefully.
3. Use bold typeface or underline to highlight important words.
4. Good questions provide facts to the reader and are easy to read and to answer.
5. Ask about only one variable per question. Compound questions are difficult to interpret; separate compound questions into multiple individual questions. For example, the question “Do you believe 4-H teaches important life skills and provides social opportunities?” is asking two questions and forces the respondent to choose which question to answer.
6. People want to answer questions correctly. Avoid asking questions like “which is better?” or “is it true that?” Rather, word questions in such a way as there is no wrong answer such as “which method of learning do you prefer?” or “which of these programs have you attended?”
7. Avoid asking questions in the negative, such as “shouldn’t the government...” or “haven’t you thought...?” Using negative forms produces confusion.
8. Avoid using jargon, acronyms, or terms of art. Do not abbreviate words or leave out important clarifications in order to shorten questions. Be sure to define words that may be interpreted more than one way.
9. Questions that ask the respondent to agree or disagree with a statement may be interpreted to reflect bias. Rather than asking “do you agree that juvenile crime is a major problem?” it is better to ask the respondent to rate the seriousness of juvenile crime on a scale, perhaps ranging choices from a minor problem to critical.
10. In some cases, it is important to gather objective data, and your questions need to be carefully constructed to avoid subjective answers. For example, if you want to learn what impact high gasoline prices will have, you have different options. You might ask “how important is fuel economy to you?” Alternatively, you could ask two objective questions “how many miles do you drive each week?” and “how many miles per gallon does your car achieve. Answers to the first question have limited value (how many people think it is important), whereas the objective questions:
 - Are easier to answer (and answers are more precise);
 - Allow the analyst to consider multiple approaches to address the need (teachable solutions ranging from carpooling to bundling errands to alternative work schedules);
 - Provide baseline data to establish goals and measure impacts;
 - Protect the respondent from making judgments.

Refining your instrument

1. Always review your own draft carefully. Have someone read each question out loud to “hear” what it is that you are asking. After you are satisfied with the questions, you are ready to pilot test your instrument with representative respondents. This may be a hand-picked set of testers or a random test.

2. For your pilot test, it may be advisable to include more blank spaces marked “other” for respondents to help you complete a list of choices. You can ask your test group to be sure to record “other” categories that occur to them. Then, when you revise your instrument, you can include new response choices that were suggested by multiple testers as “others”.
3. If you have designed a written survey, include extra-wide margins for your test-run and ask respondents to make notes about clarity or questions they have about the survey. Even if you plan to administer the survey on the internet, it is useful to conduct a pilot test on paper so that your testers have an opportunity to record their comments. At the end of the questionnaire, ask your test respondents how much time they think it will take your sample population to complete the survey.
4. When you review the completed test surveys, you should review each question and record the range of responses and comments returned to you by your testers. Make a record of the responses that you receive, just as you plan to do for the actual survey.
5. For each question and range of responses, verify that you are receiving useful data, and verify that your test group did not have any problems or difficulty answering each question.
6. Bringing your testers together (as a focus group) to discuss the kind and quality of results to expect from the survey is a valuable exercise to help you fine tune your instrument.

Institutional Approval

Prior to conducting any human research, your application must be approved by the Human Assurances Committee (HAC) managed through the University Research Office. In order to receive approval, the investigator must submit a Human Subjects Review Form to the HAC, and allow six weeks for approval. The guidelines for human subjects research and the review forms can be found at <http://www.uro.uidaho.edu/hac>.

Conducting your survey

1. For surveys by mail or email, sending a notice in advance is known to improve response rates. Before the survey is sent, send a brief announcement to your audience or sample letting them know who you are and what you are doing, and when to expect the survey.
2. Write a brief cover letter to transmit the survey to respondents. Be sure to explain:
 - Who is the target audience that you wish to survey, and how was the recipient chosen to represent that population?
 - Why people should cooperate and why the survey is being done?
 - Who is conducting the survey?
 - What is the scope of the questions in the survey (what time period should the respondent consider; are you seeking individual opinions or the opinion of a family/group)?
 - What will you do with the information you learn from the survey?
 - Will their responses will be anonymous, confidential, or public?
 - Thank them for their help and cooperation.

3. Ensure a high rate of return by following the Dillman survey Protocols ¹ or similar methodology.
 - Send a post card informing the respondents that a survey will soon be sent to them (1-2 weeks before mailing the actual survey instrument).
 - If you are using a mailing list with unknown accuracy, instead of a postcard you may choose to send a first class letter informing your sample of the survey. Undeliverable letters will be returned allowing you to cull bad addresses out of your data base prior to distributing the survey.
 - Mail the survey instrument with explanatory cover letter and a self-addressed, stamped return envelope. If the instrument is short, you may choose to send both English and Spanish versions of the survey and supporting materials. Alternatively, you may choose to include a page or postcard written in Spanish, instructing the recipient how to request a Spanish-language version of the instrument.
 - Include a due date for responses (at least 3-weeks following receipt);
 - One week before the due date, send a follow-up post card reminding them of the importance of their responses to your survey, and asking them to complete the instrument. Include contact information if they need to request a second copy of the survey.
 - If you have kept track of returned surveys, you may choose to mail a second copy of the instrument to slow responders, either instead of, or following the follow-up postcard.
 - If the preceding step does not yield the rate of response necessary, continue with a phone call to non-respondents. This call should give them an opportunity to agree that they will return the completed survey. Alternatively, you might choose to ask respondents if they would be willing to take the survey over the phone, in order to reach your target return rate.
 - Accurate mailing addresses are critical for high response rates and for sample validity.
 - Anything that makes the survey more professional-looking, personalized, or more attractive has a small positive effect on the response rate.
 - Ideas to increase response rates include high quality printing, colored paper, using an impressive letterhead, endorsements by neighbors or known leaders, and incentive payments, prize drawings, or gifts.

Analyzing your Data

The effort needed to analyze your data is inversely proportional to the effort invested to plan and conduct your survey to ensure a high rate of return. Your effort invested up front will all be rewarded by a straightforward analysis of the data.

1. When you survey the entire population rather than a sample, your results are not estimates, but are actual results. Consequently, statistics are not needed to estimate confidence levels surrounding your results. Instead, your analyses are actual measures of the proportion of the population with a certain response.

2. Methods to analyze data from a sample of the population are influenced by the sampling design and by the level of confidence you have in your findings. For closed-ended questions, statistical analyses will help you rank responses in the order of frequency, and to determine whether there is a probable difference between two or more responses.
3. If your sample design includes stratification, it may be necessary to weight answers based on how precisely your sample represents your target population.
4. Most of the statistics needed to describe a survey are quite simple. However, if you are uncomfortable with statistical analysis, be sure to consult an expert early in the process.
5. For open-ended questions, your analysis will rely on recognition of major trends observed in the responses, on recognition of key words or phrases, and on various other means of grouping responses into categories.
6. You may also have individual responses to open-ended questions that can lead to important observations. However, those individual responses are only suggestive, and should not be taken to represent the target audience.
7. For mailed surveys, while you are waiting for your surveys to be returned, you have time to create your data entry system. This can be done with Excel or other spreadsheet software, or with SPSS, SAS, or other statistical software. For phone surveys, this must be done in advance of conducting the survey. For internet surveys (using proprietary software like Survey Monkey™ or Zoomerang™), you will receive a report with some general statistics such as the frequency of responses in each response category to each question, and mean response and standard deviation related to each question.
8. The format of your data entry system will be dictated by the types of questions asked and by the range of responses available. Be sure to think through your desired analyses, perhaps with assistance from an expert, before you begin to enter data.

Attributes of Focus Groups

Focus groups are group discussions conducted in person with a limited number of stakeholders, to gain information about their views and experiences about a topic. Focus group interviewing is particularly suited for obtaining several perspectives about the same topic. A focus group can be highly useful for planning a needs assessment because you can learn a great deal about attitudes and beliefs. It is also a useful method to gather detailed information as follow-up to a survey. The focus group, however, is less useful as a primary tool for needs assessment compared to more structured interviews and surveys.

Focus groups are a form of group interviewing with important distinctions. Group interviewing involves interviewing a number of people at the same time, the emphasis being on questions and responses between the researcher and participants. Focus groups are distinctive because they rely on interaction within the group based on topics that are supplied by the researcher.⁵ Hence, the key characteristic which distinguishes focus groups is the insight and data produced by the interaction between participants.

The *purpose* of focus groups, then, is to promote disclosure among participants. It is important to allow individuals to express their perceptions, attitudes, and points of view about a specific topic in a friendly, relaxed, and comfortable atmosphere. Focus groups allow comments, explanations and shared experiences.

Focus groups are useful tools to gather detailed information about a narrowly defined area of interest. Focus groups are indicated when the goals for your inquiry include:

1. To gain information from a selected group of individuals about their views and experiences of a topic; the use of open-ended questions allows individuals to respond according to their own experiences and interests.
2. To gain insights into people's shared understandings, rather than individual thoughts and interests;
3. Insight and data produced by the interaction between participants; including new ideas and perspectives drawn out because of the interaction among participants.
4. Gathering of qualitative data, where use of statistics is not needed to verify confidence.
5. Building relationships or buy-in from stakeholders.

Focus groups are suited to analysis of a group view, but are problematic when the goal is to identify knowledge or experiences based on the individual. Logistics for focus groups may be challenging, and the personalities of both the participants and the moderator introduce variability. The role of the moderator is especially significant. Strong group leadership and interpersonal skills are required to moderate a group successfully, but the moderator must exercise discipline to keep from swaying the discussion. Moderator training is available and trained moderators/facilitators are highly recommended.

Advantages of focus groups include:

1. Relatively easy to set up.
2. The actual data collection step is fast and relatively inexpensive.
3. Can bring project personnel and beneficiaries together.
4. Stimulates dialogue and new ideas.
5. Generates ideas for evaluation questions to be included in other survey methods.
6. Socially oriented "synergism" (people respond in natural situations).
7. Format allows the moderator to probe (flexible).
8. High face validity (credible questions result in easily understood quotes and comments).
9. Good public relations activities.

Disadvantages of focus groups include:

1. The format is easily misused; purposes must be consistent with the attributes of the method.
2. Requires special moderator skills; moderator has less control over the group and the direction of the discussion than for a group interview; groups are highly variable, some are talkative, others not.
3. Data interpretation is tedious and there are risks with lifting comments out of context.
4. Not suitable for generating detailed information.

5. Avoiding bias can be difficult, both in the conduct of the group and in data interpretation.
6. Capturing major issues can be difficult.
7. Results cannot be generalized to apply to the entire target population.
8. Work to identify, prepare, and assemble participants can be time consuming.
9. Requires an environment that is conducive to conversation and candor.
10. Cannot be used to resolve conflicts or generate consensus.

Focus Group Procedures

1. The following outline describes those considerations important in the creation, administration, and analysis of a focus group. For more complete thoughts and procedures, see Templeton, 1996.⁶

Choosing your method

1. Focus groups are valid if they are used carefully for a problem that is suitable for focus group inquiry. (Validity is the degree to which a procedure really measures what it proposes to measure.)
2. Examples of purposes for which focus groups are appropriate include: Assessment of community needs and issues; citizens' attitudes, perceptions and opinions on specific topics; impacts of a particular program on individuals and communities.
3. Focus groups are not suited to learning about the needs and issues of an individual, so the topic and questions need to be focused on the community or group.

Choosing your participants

1. Identify and describe the target population as carefully as possible; this will enable you to select a panel representative of that group.
2. Select participants with the purpose of building a group that is comfortable talking together; your goal is to form a relatively homogeneous group.
 - Individuals with common characteristics (age, interest, profession, etc.)
 - Unfamiliar to each other (familiarity tends to inhibit disclosure)
 - Commonality, not diversity
3. Ideally, members of the focus group should be strangers with enough key traits in common that they are comfortable. While this is not always possible, it is important to avoid using participants with certain kinds of relationships.
4. Do not invite spouses to the same focus group or others who might be expected to have undue influence over the other, such as a boss and employee, a teacher and student, a parent and child, etc.
5. Describe recruitment qualifications in advance, in order to avoid bias in the selection process (qualifications may include age, ethnicity, membership in certain groups, etc.).
6. Seek participants through membership lists, directories, and associations whose members you can expect will meet your criteria.
7. Diversity among participants is accomplished through multiple focus group sessions, not through diverse participation in a single event.

Logistics

1. The session is managed by a moderator and an assistant moderator.
2. The number of participants for each focus group should be between 7 and 10; small enough for everyone to have an opportunity to share, large enough to provide a variety of perceptions and attitudes. It is advisable to recruit 12 participants and hope that at least seven attend.
3. Each focus group will take between one and a half and two hours, depending on the number of participants and length of responses.
4. The meeting space needs to be a comfortable room for conducting the group.
5. Equipment and materials needed include:
 - A high quality tape or video recorder and high quality microphone
 - Sufficient audio or video tapes or discs to record the session
 - Name tags for participants and moderators (first names only)
 - Notepad for taking notes
 - Form to report/reimburse mileage
 - Educational material for handouts
 - Refreshments if planned
6. Check equipment before the session.
7. Focus groups must be replicated several times; sufficient replication has occurred when discussions become repetitive and when new groups cease to surface any new major themes.

Describing your questions or topics

1. Moderator uses predetermined open-ended questions.
2. Questions appear spontaneous but are carefully designed and in a logical sequence and are memorized by the moderator.
3. The moderator must explain and establish the context for each question.
4. Tips for developing questions:
 - Include fewer than ten questions, usually around five to six total
 - Researchers recommend no more than three topics (with sub-issues under each) for discussion
 - Open-ended questions reveal what's on participants mind about topic
 - Go from general to specific questions
 - "Why" questions are rarely used
 - Take time to develop questions for clarity, precision, phrasing, and brevity
 - Use phrases like "thinking back to..." or "what prompted you..." or "describe" or "if you could change"
 - Encourage conversation and involve others by asking "who can add to that?" or "does everyone accept that?"
 - Close-ended questions might include phrases like "to what extent ..." or "how much..."
 - Test the questions with others; review the sequence of questions and the path of the discussions; pay attention to possible opportunities to probe for detail or clarity

- The first focus group is actually the pilot test and an opportunity to make any changes that are needed
5. Ending Questions are very important. For your final question, ask something:
 - Reflective ... "All things considered..." This question asks participants to reflect on the entire discussion and then offer their positions or opinions on topics of central importance to the researchers. "Of all the things we discussed, what to you is the most important?"
 - Summary question... "Did we hear you?" After the brief oral summary the question asked is: "Is this an adequate summary?"
 - Final question to verify completeness... "Is there something you would like to add?" The moderator reviews the purpose of the study and then asks the participants: "Have we missed anything?"

Selecting your moderator

1. Identify a trained moderator and an assistant to conduct the focus group interview.
2. The moderator creates a warm and friendly atmosphere, is focused and a good listener, directs and keeps the flow of the conversation, is knowledgeable about the topic.
3. The moderator must be skilled at drawing information and opinions from the participants; asks for clarification and teases out detailed information.
4. The moderator must remain neutral and should not influence the discussion while challenging, probing, and exploring each issue.
5. The assistant moderator takes careful notes, monitors recording equipment, and manages logistics.

Time line

1. Check community activities before setting a time and date for the focus group
2. Call potential participants 10-14 days before the session
3. Send personalized invitations one week before
4. Telephone each individual the day before the session

Contacting Perspective Participants:

1. Most important factor in recruiting, what's in it for them?
2. Upon initial contact with perspective participants:
 - Verify their qualifications to be a participant.
 - Briefly tell them why the focus groups are being conducted without discussing the specific questions that will be asked.
 - If they are interested in participating ask for their phone number and address.
 - Ask what days and times would be best for them to attend a focus group.
 - Tell them approximately how long the focus group will take.

Participant Incentives

1. Participants are providing you with a source of data, perceptions, ideas, and attitudes. Because they are necessary for you to conduct your research, it is advisable that they are compensated for their time. The most common technique is to provide “incentives” to participants. Incentives such as meals, coupons, or cash are widely used for focus group participants.
 - \$15-25 is a reasonable incentive for participants who are easy to reach and available any time
 - \$25-50 is reasonable for participants that must meet a number of specific criteria
2. Incentives should be identified in invitations when possible. Knowledge of the incentives helps participants to know that they are appreciated, and that their thoughts are important. Their sense of value to the project will likely improve their participation.
3. Follow-up on your sessions by sending letters to participants, thanking them for their participation.

Managing focus group sessions

1. Before the session begins:
 - Greet the participants as they arrive; be warm and friendly and answer questions they might have without discussing the key questions to be asked during the focus group
 - Hand out and ask participants to fill out registration forms necessary to receive the incentive, mileage reimbursement, etc.
 - Distribute educational material or handouts
 - This is a good time to hand out and collect demographic questionnaires
2. The first few moments in focus group discussion are critical. In a brief time the moderator must create a thoughtful, permissive atmosphere, provide the ground rules and set the tone of the discussion. Much of the success of group interviewing can be attributed to the development of this open environment.
 - Deliver a prepared introduction to the focus group that:
 - Thanks participants for coming
 - Tells the participants the purpose of the discussion and the goals for the session
 - Explains the plan for the session, how it will proceed and how participants will contribute
 - Describes the ground rules; (one speaker at a time, please speak up, there are no right or wrong answers, we seek their different opinions, etc.)
 - Describes your recording procedures. Mention that because a tape recorder is being used that it is important for only one person to speak at a time.
 - Remind the participants that all answers are confidential.
 - Offer to answer any questions they might have about how this information will be used.

3. Begin the discussions by asking the opening question. The lead question is often quite general like "what are your thoughts about X?"
4. Make sure that everyone's opinion about that question has a chance to be heard.
5. Follow with your successive questions.
6. Immediately after the focus group
 - Draw a diagram of seating arrangement
 - Spot check tape recording to ensure proper operation
 - Conduct moderator and assistant moderator debriefing

What kind of questions do you ask in a focus group?⁷

Below are some examples of general questions. These apply largely to groups discussing a current program or service, but they can be adjusted for planned programs, as well as for groups dealing with other concerns. The precise language and order of presentation will depend on your topic and group, but some of these questions may be adapted to your own needs.

- "What are some of your thoughts about what's going on now?"
- "Would you say you are satisfied with the current situation, with the way things are going on?"
- (If so) "What are you satisfied about? Why is that?" (Or, "What's going well...?")
- "Are there things you are dissatisfied with, that you would like to see changed?" (Or, "What's not going well...?")
- (If so) "What are they? Why is that? How should they change? What kinds of things would you like to see happen?"
- "How about this particular aspect (of the topic). What do you think about that?"
- *Repeat for different aspects of the topic, with variations in style. For example, if the main focus group topic was "community policing," some key aspects to cover might be visibility, sensitivity, interaction, respect, etc.*
- "Some people have said that one way to improve X is to do Y.
- Do you agree with this?" (Or, "How do you feel about that?")
- "Are there other recommendations that you have, or suggestions you would like to make?"
- "Are there other things you would like to say before we wind up?"
- Some "probes", or follow-ups", designed to get more information on a given question:
 - Can you say more about that?
 - Can you give an example?
 - Jane says X. How about others of you. What do you think?
 - How about you, Joe. [Or, "you folks in the corner over there...."] Do you have some thoughts on this?
 - Does anyone else have some thoughts on that?

Analyzing data

1. Analysis is a systematic process; begin while the group is in session
 - Listen for inconsistent comments and probe for understanding
 - Listen for vague or cryptic comments and probe for understanding
 - Consider asking each participant a final preference question
 - Offer a summary of key questions and seek confirmation
2. Within hours, analyze individual group
 - Make back-up copy of tapes and send tape to transcriber for computer entry if transcript is wanted
 - Analyst listens to tape, reviews field notes and reads transcript if available
 - Prepare report of the individual focus group in a question-by-question format with amplifying quotes
 - Share report for verification with other researchers who were present at the focus group
3. Within days, analyze series of groups
 - Compare and contrast results by categories of individual focus groups
 - Look for emerging themes by question and then overall
 - Construct typologies or diagram the analysis
 - Describe findings and use quotes to illustrate your points
4. Prepare draft and final reports, circulate
 - Consider narrative style versus bulleted style
 - Use a few quotes to illustrate
 - Sequence could be question by question or by theme
 - Share report with moderator and assistant, and with other researchers
 - Revise and finalize report
 - Note themes, hunches, interpretations and ideas
5. Label and file field notes, tapes and other materials

Analysis Tips for Focus Groups

When conducting this analysis remember that you are looking for trends and patterns:

1. **Consider the words.** A variety of words and phrases will be used and the analyst will need to determine the degree of similarity between these responses. Think about both the actual words used by the participants and the meanings of those words.
2. **Consider the context.** Participants respond to stimuli – a question asked by the moderator or a comment from another participant. Examine the context by finding the triggering stimulus and then interpret the comment in light of the preceding discussion and also by the tone and intensity of the oral comment.
3. **Consider the internal consistency.** Participants in focus groups change and sometimes even reverse their positions after interaction with others. This phenomenon rarely occurs in individual interviews due to a lack of interaction from other participants. When there is a shift in opinion, the researcher typically traces the flow of the conversation to determine clues that might explain the change.

4. **Consider the frequency or extensiveness of comments.** Some topics are discussed by more participants (extensiveness) and also some comments are made more often (frequency) than others. These topics could be more important or of special interest to participants. Also, consider what wasn't said or received limited attention. Did you expect and not receive certain comments?
5. **Consider the intensity of the comments.** Sometimes participants talk about a topic with a special intensity or emotion. Note when participants use words that illustrate their strength of feeling. Intensity may go undetected analyzing transcripts alone because the tone of voice, speed and emphasis on certain words is not recorded.
6. **Consider the specificity of responses.** Specific responses, based on personal experience, should be given more weight than responses that are vague and impersonal. Greater weight is often placed on responses that are in the first person (as opposed to hypothetical answers) or when respondents can provide specific details when asked a follow-up question. For example, "I feel the new technique has increased my income" has more weight than "the methods will help people make more money."
6. **Find the big ideas.** The researcher can get so close to a multitude of comments and details that trends or ideas that cut across the entire discussion are missed. One of the traps of analysis is not seeing the big ideas. It may be helpful to take a few steps back from the discussions by allowing an extra day for the big ideas to percolate. For example, after finishing the analysis the researcher might set the report aside for a brief period and then jot down the three or four of the most important findings. Assistant moderators or others skilled in qualitative analysis might review the process and verify the big ideas.

Attributes of Interviews

Interviews are a means to collect needs assessment data through one or more conversations between two or more people. Interviews can be conducted either face to face or via technology (telephone, video conference, or on-line via the web). Interviews may involve an interviewer and a single interviewee or multiple interviewees at the same time (group interviews)

Advantages of interviews as a tool for assessing needs

1. Interviews are inexpensive to conduct; the only resource investments are the interviewers' time, the interview plan, and the analyst.
2. A variety of perspectives can be obtained; because the conversation is open-ended (compared to a questionnaire) it is permissible to probe for understanding during an interview.
3. Interviews can lead to understanding and rapport with the stakeholders, better than through questionnaires. Be open to what they have to say.

4. Can generate both breadth and depth of information about a topic; probing further when an interesting point is made allows you to vary your approach and explore ideas you had not considered.
5. Interviewer can clarify questions for the respondent and can watch participants (body language) to determine if they understood what you were asking.
6. Interviewer can ask for clarification from the interviewee if there is an answer that is not quite clear.
7. Interviewer can receive additional information in the form of nonverbal clues; Watch the interviewee's body language for understanding, interest, restlessness, etc. Tailor your interview appropriately to gain the most information possible while maintaining rapport.

Limitations of using interviews as an assessment tool are:

1. Bias due to data collector's interest; have other reviewers look at your questions before the interview and edit out as much bias as possible.
2. Partial picture of training needs due to the typically small number; interview as many as possible in the time frame.
3. Time intensive; interviews with several people can be productive as long as the interviewer keeps the group on task.
4. Data can be difficult to organize and quantify from open-ended interviews; planning up front can help; interviewer should assist in data analysis to correctly categorize answers.
5. Self-reporting of participants may bias data; interviewees might be hesitant to reveal any shortcomings, even if training could help them.
6. Discussion can wander from purpose of interview; interviewer's primary goal is to keep the respondent on task.
7. Unskilled interviewers can make clients feel self-conscious; try to be comfortable, relaxed and well organized.

Interview Procedures

1. Plan a consistent preamble including:
 - who the interviewer is
 - who they are working for
 - what kind of questions will be asked
 - time that will be needed
 - what will be done with the data
 - how confidentiality will be maintained
2. Come prepared; plan your interviews carefully; craft your questions precisely and memorize them.
3. Consider multiple directions that the questions and answers may lead.
4. Use a blend of closed- and open-ended questions to ensure gathering some replicable data as well as the rich subjective data possible through the interview technique. Ask for clarification when you need it.
5. Try different techniques; joking, a mild challenge, or asking a subject to elaborate with a story can sometimes give you better information.
6. Unstructured discussions require significantly more time to analyze data.

7. Carefully focused discussion will take more time to create and less time to analyze.
8. Construct a recording form for documenting the content of the conversation.
 - Include a description and space to record responses to each specific question that you will ask.
 - Include abbreviated notations for a range of likely answers, so that you might be able to check off anticipated ideas as they surface. This will allow you to spend your time listening to and recording unique thoughts.
 - Test the recording form with several mock interviews to enhance your ability to focus on the interviewee while taking adequate notes.
9. Skilled interviewers keep discussions active and productive; practice active listening; plan ways to keep the conversation on track and to coax additional information when needed.
10. Good interviews are those where the subjects are comfortable and feel free to talk – do not interrupt subjects or change the direction of the conversations too quickly.
11. Hold interviews in a comfortable private environment, free of interruptions.
12. Avoid counseling the interviewee.
13. If the interviewee asks for a comment to be “off record,” accommodate that wish.
14. Never betray your client’s trust.

Analyzing Interview Data

The procedures for data analysis are similar to those for focus groups (see above). Most important is that notes be reviewed and clarified immediately after the interview. At the end of each group of interviews (perhaps daily) all of that day’s notes should be reviewed and summary observations should be documented.

Working Groups (Group Activities and Group Processes)

Group process is used to manage how people work together in groups. Group processes refer to a variety of techniques and activities through which a facilitator leads a group to a desired output and corresponding outcome. Group activities can be used to identify issues and opportunities, to build consensus, to prioritize issues or alternatives, and to assess clientele needs. A facilitator can lead a group through one or more activities to create an output over a period of 2-3 hours, or it may require dozens of successive activities (processes) conducted during hundreds of hours of meetings and spread over multiple years. When group process is used to inform a needs assessment, the output is an assessment report that documents needs based on direct stakeholder input, consultation, and consensus. (See Tropman, 1996 for a valuable resource on using group processes for building consensus.⁸)

Uses of Working Groups

In many ways, the appropriate uses of group processes are comparable to the appropriate uses of focus groups, except that the output from a group process can be a specific product in addition to a record of the session. The similarity with focus groups is largely due to the interaction among participants. As a consequence, the resulting output is more of a

collective product and less reflective of the needs of any one individual. Group processes are useful when your goals include:

1. To gain information from a selected group of individuals about their views and experiences on a topic.
2. To gain insights into people's shared understandings, rather than individual thoughts and interests.
3. A product that reflects a consensus viewpoint among participants.
4. A collaborative effort to organize data or consider alternatives (such as a prioritized list of issues or options).
5. Creating or enhancing organizational credibility and a relationship with participating stakeholders.
6. Qualitative data that does not need to be representative of a larger population.

Advantages of Working Groups (several are similar to those for focus groups) include:

1. Relatively easy to set up, can be fast and inexpensive.
2. Can bring project personnel and beneficiaries together.
3. Stimulates dialogue and new ideas.
4. Generates insights, ideas, and questions to include in other evaluations or surveys.
5. Social "synergism" (people respond in group settings).
6. Group processes can accommodate 12-30 participants comfortably (about 18 is ideal, depending on the facilitator and various activities chosen for the group work)—considerably more participation than is desired for focus groups.
7. Format allows the facilitator to probe (flexible).
8. A well designed process can lead to a participant-created product, requiring minimal data analysis.
9. Can be used to resolve conflicts or generate consensus.
10. High face validity (individual stakeholders contribute to a consensus product).

Limitations of Working Groups are also similar to those for focus groups.

1. Difficult to separate the individual view from the group view.
2. The role of the facilitator is very significant. Strong group leadership and interpersonal skills are required to facilitate a group successfully, but the facilitator must exercise discipline to keep from swaying the discussion.
3. A skillful group facilitator will produce different results than a less skilled facilitator.
4. Work groups require logistical and practical arrangements that meet the needs of a fairly large number of people, they may be time consuming to assemble and require an environment conducive to conversation and candor.
5. The format is easily misused; purposes must be consistent with the attributes of the methods.
6. Avoiding bias can be difficult, both in the conduct of the group and in interpretation of the outputs.
7. Most groups are unwilling to commit the time needed to go beyond major issues sufficiently to generate detailed data.
8. Results cannot be generalized to apply to the entire target population.

Role of the facilitator and purpose of group techniques

1. Create and maintain structure in the conversation, to keep it on track and moving forward.
2. Acknowledge all ideas and contributions made by participants.
3. Ensure that all participants feel safe to contribute.
4. Protect participants from reprisals or personal attacks.
5. Downplay the relationship between an idea and its author.
6. Reduce the influence of group opinion on the individual.
7. Allow an objective comparison of alternatives.

Nominal Group Technique

The Nominal Group Technique (NGT) is a structured process to gather information from a group. The technique was first described in 1975⁹ and has since become a widely-used standard to facilitate working groups. The NGT is effective for generating large numbers of creative new ideas and for group priority setting. It is designed to allow every member of the group to express their ideas and to minimize the influence of other participants. Using the NGT, individuals work alone, but in a group setting.

The NGT is a technique for work groups to set goals, identify problems (a component of the needs assessment), create ideas and suggestion to solve problems, or plan programs for an organization. The process is particularly useful with advisory groups to help identify problems or opportunities and to set priorities for extension programming.

The process allows the facilitator to 1) manage the meeting and discussion, 2) keep the group working toward the task at hand, 3) ensure that everyone participates, and 4) set priorities and reach consensus on the goals, problems, solutions, or program suggestions proposed by the group.

Appropriate uses for The Nominal Group Technique:

1. When you want to generate a lot of ideas relevant to some issue.
2. When you want to assure all members participate freely, without influence from other participants.
3. When you want to identify priorities or select a few alternatives for further examination.
4. When there is controversy or uncertainty concerning the nature of an issue or problem and its possible resolution.

Steps for conducting NGT activity

1. Materials and Logistics

- Meeting room should be large enough to seat participants comfortably at a table, and so that they can all look at one another (tables set in a hollow square are ideal).
- If break-out sessions will be used, individual break-out rooms are recommended. If not available, the meeting room needs to be large enough that small groups can meet in the corners without distractions from the other groups.
- Provide easels and flip charts for each group. Provide a sufficient number of dark-colored (so they can be seen across the room) water color-based (so they do not stain hands, clothes or walls) flip chart markers.
- Provide tape, tacks, or other means to post flip chart sheets on a wall; or use self-adhesive flip chart pads.
- Provide sticky dots or flip chart pens for participants to record their votes.
- Provide 3x5 cards (or writing tablets) and pencils for participants.
- Have refreshments (at least water) available for participants.

2. Introduction: Framing the Question

- Always begin by having participants introduce themselves. Spending time to meet and greet helps establish a level of trust and comfort among participants.
- The facilitator triggers the discussion with a key issue or question.
- The issue or question should be stated in an objective tone and should not give indications of possible or potential solutions.
- For the purposes of a needs assessment, the issue statement prepares your group to identify major issues, concerns, or problems faced by your clientele or your community, which they feel might be extension priorities.
- One way to set the stage is to present a review of current programs, a look at the current five year State Plan of Work, etc.

3. Brainstorming: the “Nominal” Phase

- Participants generate ideas silently, in response to the key question. It is best to ask participants to write their ideas on a sheet of paper or on 3”x5” cards.
- Participants are instructed not to discuss their ideas with each other until the brainstorming session is over; usually about 10-minutes.
- Facilitator asks each participant in turn to share their top response (idea) with the group.
- Ideas are recorded on a Flip Chart or other device that allows all participants to see and read the “group memory” clearly.
- Participants are asked not to repeat responses that have already been listed; instead they should share their next idea.
- Do not combine ideas at this time, record each item separately.
- After each participant has shared their top idea, repeat the process by asking ask each participant to share their second idea. Continue until all participants have shared all of their ideas with the group.

- No discussion of ideas should occur during the brainstorming activity. Facilitator should explain that ideas are not to be judged or evaluated at this time, and that discussion would take place during the next phase of the process.

4. Discussion: the “Clarification” Phase

- Each idea is explained by the participant who presented it.
- Other participants can ask questions that help clarify the idea and the intention of the author.
- Ideas are discussed in turn, in the order they were recorded – not based on popularity, controversy, or any other judgment.
- The facilitator leads a discussion about each of the ideas, ensuring that all participants are invited to share their thoughts, pros and cons, about any given idea.
- The facilitator also keeps the conversation moving forward, avoiding spending too much time on any one issue. The discussion continues until all participants are comfortable with the meaning and intent of each idea.
- If you are dealing with an unmanageable number of ideas, it may be desirable to insert an optional “ranking” step here. To conduct a ranking, have each participant write down on a 3”x5” card their top 10 (or top 5) ideas from the entire list, and then rank them 1-10 (or 1-5) with 10 being highest. Participants can also write their rankings next to the ideas on the flip charts. Compile the ranking numbers and create a refined list of ideas that includes only those original ideas that were ranked on at least one participant’s individual list.
- Some closely-related ideas may be combined during this phase, if both authors agree, and a single idea restated to reflect the combination.

5. Decision making: the “Voting” phase

- Group decisions are made through a process of voting or ranking of ideas or alternatives. The process results in a prioritization of the recorded ideas or responses to the original issue or question.
- Before any vote is taken, it is useful to have a discussion with the group about the number of ideas that will be included on the final list. This defuses a potentially awkward situation during the final stage of the process by giving additional information to the participants before they vote.
- Once all discussion has been completed, participants cast their individual votes. Those votes are tallied to make a group decision.
- The authors of the original NGT process describe the voting procedure as a “private” activity. However, others have explained the benefits of a more public voting process, particularly as it relates to improving the long-term acceptance of the results.¹⁰
- In the original description, each group member is asked to rank order their top alternatives; with a score of 10 being the most important. This is done by having participants write each idea and its rank on a 3X5 card. The facilitator collects

- the cards and records each ranking beside the alternative. The ranks for each alternative are averaged.
- As an alternative, each participant is asked to write their choices first in private on a card or sheet of paper. Then, in an open (public) voting process, participants indicate their choices by placing sticky dots, or by making marks, on flip charts next to the ideas that they prefer.
 - The number of votes given to each participant may be small (maybe only 3-4 votes) or may be large (perhaps 100 votes). The number of votes per participant should depend on the absolute number of ideas that are being considered (more ideas=more votes) and on the number of ideas that will be included on the final list of priorities.
 - Allowing participants to cast multiple votes increases the likelihood that each participant will support at least one of the ideas on the final list.
 - Participants should be instructed how they may cast their votes (all of their votes for a few ideas, or spread across a larger number of ideas).
 - If participants are permitted to cast multiple votes for a single idea, then the process allows them to weight their preferences by assigning more votes to their first choice.
 - However, allowing all votes to be cast on a single item increases the chances that a participant will fail to see their preference on the final list of priorities. An intermediate solution is to allow participants to cast a large number of votes, but to also require that they vote for a minimum number of ideas.
 - After voting has been completed, the final list of ideas is reconfigured in ranked order.
 - Each item on the final list is discussed. The final discussion helps participants understand what was accomplished during the session, and to understand what steps are to be taken next.
 - In some cases, the list produced may not be representative of the group's wishes. Discussing and asking questions about the final list may reveal that the vote should be repeated.
 - The final list becomes a concrete product of the group process.

Tips for Conducting the *Nominal Group Technique* Activity:

1. If your group is large, some participants may not feel the opportunity or desire to participate. Dividing into smaller groups (5-8 participants each) encourages more active participation.
2. When smaller groups are formed, it is necessary for someone to facilitate the small group, keeping track of progress and leading to a group product. This person can be appointed by the main facilitator or can be selected by the members of the small group.
3. Small groups can be used for any or all three of the phases of the NGT. However, it is important for the small groups to come together after each phase to share with the large group what their small group has accomplished.

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- ¹ Gupta, Kavita, Catherine M. Sleezer and Darlene F Russ-Eft. 2007. *A Practical Guide to Needs Assessment*, Second edition. John Wiley and Sons, Inc. San Francisco.
- ² See *A Community Needs Assessment Guide* by A. Sharma, M. Lanum and Y. Suarez-Balcazar from Loyola University of Chicago at http://www.luc.edu/curl/pdfs/A_Community_Needs_Assessment_Guide_.pdf
- ³ For a thorough explanation and numerous scholarly references, please review: Salant, Priscilla and Don A. Dillman. 1994. *How to Conduct Your Own Survey*. John Wiley and Sons, Inc. San Francisco.
- ⁴ Strauss, A. & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage Publications. London.
- ⁵ Morgan D.L. 1997. *Focus groups as qualitative research*, 2nd Ed. Sage Publications. London.
- ⁶ Templeton, Jane Farley. 1996. *The Focus Group: A Strategic Guide to Organizing, Conducting and Analyzing the Focus Group Interview* (revised edition) McGraw Hill Trade.
- ⁷ This section is reproduced by permission from the University of Kansas. Visit The Community Tool Box: <http://ctb.ku.edu>.
- ⁸ John E. Tropman. 1996. *Making Meetings Work: Achieving High Quality Group Decisions*. Sage Publications. Thousand Oaks, California.
- ⁹ The NGT was originally described by Delbecq, A.L., Van de Ven, A.H. and Gustafson, D.H. 1975. *Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes*. Scott, Foresman & Company, Glenview, IL. This treatment, and dozens of others, is adapted from that pioneering work.
- ¹⁰ Bartunek, J.M. and J. K Murningham. 1984. The Nominal Group Technique: Expanding the Basic Procedure and Underlying Assumptions. *Group Organization Management* 9:417.