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Conducting the Needs Assessment #9: The Nominal Group Technique[1]

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Introduction to the Nominal Group Technique

This ninth publication in the *Conducting the Needs Assessment* series provides an overview of using the nominal group technique (NGT) to conduct a needs assessment. This document defines the scenarios in which the NGT is suitable, describes the steps involved in conducting the NGT, and provides examples of the use of this technique in Extension.

What is the Nominal Group Technique?

The NGT is a structured focus group used to identify and prioritize needs by pooling together ideas generated by a small group of individuals (Delbecq et al., 1975). This process is comprised of four distinct stages in which participants are given equal opportunity to contribute ideas both independently and as a group. The purposeful structure of these four stages collectively lends strengths to this method, but also limits the needs assessment contexts in which the NGT is appropriate to use.

Extension Needs Assessment Situations Best Suited for the Nominal Group Technique

The NGT is an effective approach to understanding the needs of a community; however, special care and consideration should be taken when defining the right situation in which the NGT should be used. Below we have outlined a list of scenarios, or situations, in which the NGT would be an effective method to identify the needs of a community.

- **Defined opinion leaders:** An Extension professional can make the case to use the NGT if they have a defined and diverse group of community opinion leaders. Opinion leaders are defined as members within a community whose beliefs, words, and actions hold much influence and power (Rogers & Cartano, 1962). Extension agents should know who their community's opinion leaders are, in which case the NGT is a strong candidate to use.
- **A willingness to participate:** The NGT will only be effective if selected participants are willing to participate in sharing ideas. Unlike some other needs assessment approaches, the success of the NGT hinges on each participant sharing equally and openly (Witkin & Altschuld, 1995). If a community's opinion leaders are open to sharing ideas and thoughts, then the NGT is a strong needs assessment technique to consider using.

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- **Little preliminary data:** If during the preassessment phase (Turner & Benge, 2021) the Extension professional did not find any, or enough, preliminary data, then the NGT might be the right needs assessment tool. The NGT is a qualitative method that tasks stakeholders with identifying the needs of their own community. While many quantitative needs assessment techniques require the Extension professional to already have an understanding of an audience's needs, the NGT allows the Extension professional to start from the ground up.
- **Lack of available resources:** Resources such as time and money are important commodities for Extension professionals. The NGT can be an inexpensive tool, regarding both time and money, to gather a priority list of community needs. Additionally, the NGT can be conducted virtually, which decreases the amount of travel time and expenses.
- **Lack of needs assessment experience:** Many Extension professionals begin their Extension careers with little program planning and needs assessment experience or expertise (Benge et al., 2011). The NGT is a valuable tool for those without extensive needs assessment experience because it provides a detailed and structured approach for the Extension professional to follow (Delbecq et al., 1975).

Selecting Nominal Group Technique Participants

In selecting participants, generally, a group of 5–9 is ideal (Poling, 2009), although this technique also is used with both smaller and larger groups. Smaller groups may not generate enough ideas, while larger groups are more difficult to manage, which can prevent the facilitator from capturing adequate detail (Manera et al., 2019; Murphy et al., 1998).

Because the purpose of the NGT is to generate a broad range of ideas, the pool of participants should have specific expertise and diverse perspectives. The Extension professional or other practitioner should first decide on the criteria individuals need to participate, and then recruit participants (Black et al., 1999). In contrast to random sampling, purposive sampling should be used to intentionally select participants based on specific criteria and to ensure representation of different groups and viewpoints. The Extension professional developing the session(s) can use their judgment to ensure the right people are engaged in this process. Consider recruiting a heterogeneous group of individuals who:

- are considered experts on the topic,
- have relevant experience or knowledge,
- are closely linked to the problem or issue,
- represent the full range of characteristics of the target audience,
- interact with the target audience (e.g., if the target audience is urban farmers, it may make sense to include some of the growers' clients or employees),
- have a variety of perspectives on the topic,
- will be able to apply the results of the needs assessment,
- are respected among the target audience, and
- are likely to make sound decisions (Black et al., 1999; Fink et al., 1984; Manera et al., 2019; Murphy et al., 1998).

It is important to note that when considering expertise in the context of the NGT, an expert can be someone who has scientific or technical knowledge pertaining to the issue, but they also can be someone who has experienced the issue or has knowledge of the target audience (Black et al., 1999). It is important to thoughtfully consider the expertise and experience individuals can bring to the process; in general, greater diversity within the group (e.g., in expertise, experience, personality, skills) will lead to better outcomes (Murphy et al., 1998). Extension professionals and other practitioners may find they have the best outcomes in recruiting participants if they personally extend invitations to selected individuals or work with others who are respected members of the target audience to do so.

Identifying Needs through Nominal Group Technique

The NGT is a highly structured group process for identifying needs. It consists of four distinct stages, with each stage lending strengths to the overall process.

- **Stage one: Individual idea generation.** Each NGT session starts with a facilitator presenting a single question that asks the group participants about a specific area of need. In the first stage, participants spend a few minutes individually and silently brainstorming and writing down responses to that question (Delbecq et al., 1975).
- **Stage two: Round-robin sharing.** After participants have individually generated ideas, the facilitator asks each person to share one idea at a time, going from participant to participant until all of the ideas from the first stage have been shared (Delbecq et al., 1975). The facilitator writes each spoken idea on a board that is visible to all

participants, using the exact words that the participant provided (Witkin & Altschuld, 1995).

- **Stage three: Discussion.** Next, the facilitator guides the participants through each of the ideas listed on the board (Delbecq et al., 1975). In this stage, the participants can, for the first time in this process, discuss each idea in detail, clarifying, refuting, and voicing agreement for various ideas (McMillan et al., 2016). Each list item should receive equal discussion time and no idea should be dwelled on for too long (Delbecq et al., 1975).
- **Stage four: Voting.** In the final stage, participants individually and anonymously vote on the ideas that each considers to be of high priority (Delbecq et al., 1975). Extension professionals can set the criteria and process used in this step based on the audience and the goals of the needs assessment. For example, participants may be asked to rank all the generated ideas either individually (ranking each idea as high, medium, or low priority) or as a group (ranking each idea in order from highest to lowest priority). In other scenarios, Extension professionals may find more benefit in having participants cast votes for the highest priority ideas. For example, participants may be given between five and nine votes (Delp et al., 1977), or they may be given a hypothetical sum of money to "spend" on addressing certain needs. Extension professionals may allow each participant to spread his/her votes or funds over many priority ideas or to allocate all their votes to one high priority idea. See the list of publications below for practical examples of how this stage may be conducted. Regardless of the process chosen, at the end of the fourth stage, the facilitator pools the votes and records the results on a board visible to all participants (Delbecq et al., 1975). Depending on the audience and goals of the needs assessment, the NGT can end with this single vote (McMillan et al., 2016) or participants can discuss the prioritized needs further before voting a second and final time (Delbecq et al., 1975; Witkin & Altschuld, 1995).

The NGT can be used as a standalone needs assessment tool, with the end result of a session being a list of prioritized needs. However, needs assessments are most effective when more than one data collection method is used (Witkin & Altschuld, 1995). Therefore, Extension professionals may find additional benefit in using the list of needs identified in the first three stage of the NGT (i.e., the unprioritized list of needs) to develop a survey tool, which would allow a greater proportion of the target audience to prioritize their needs.

Consider exploring the following examples of the variety of ways in which the NGT is used:

- Bammer, M. (2019). *Identifying and Assessing the Needs of Florida Commercial Beekeepers Using Nominal Group Technique* [Master's thesis, University of Florida]. University of Florida Theses & Dissertations Collection. https://ufdc.ufl.edu/UFE0055811/00001
- Bitsch, V., Ferris, T., & Lee, K. (2009). Extension teams collecting industry-specific stakeholder input. *Journal of Extension, 47*(3). https://archives.joe.org/joe/2009june/rb5.php
- Dunn, M. A., Vlosky, R. P., & Chavez, A. (2003). A facilitated prioritization process: An application in the forest sector in Honduras. *Journal of Extension, 41*(1). https://archives.joe.org/joe/2003february/a5.php
- Ferrer, M., Jacob, S., & Ferrari, T. M. (2001). Two (or more) heads are better than one: An application of group process to developing extension evaluation tools. *Journal of Extension, 39*(5). https://archives.joe.org/joe/2001october/a2.php
- Place, N. T. (2007). Using nominal group techniques for helping new Extension agents understand how to effectively involve advisory committee members. *Journal of Extension, 45*(1). https://archives.joe.org/joe/2007february/iw1.php
- Robinson, P., & Shepard, R. (2011). Outreach, applied research, and management needs for Wisconsin's Great Lakes freshwater estuaries: A Cooperative Extension needs assessment model. *Journal of Extension, 49*(1). https://archives.joe.org/joe/2011february/a3.php

Benefits and Limitations to Using Nominal Group Technique in Needs Assessment

As with all needs assessment methods, Extension professionals should weigh the following benefits and limitations of using the NGT before adopting this method.

Benefits of using the NGT to identify needs include:

- giving the opinions and ideas of all participants equal consideration,
- minimizing concern over competition or confrontation between participants,
- providing a greater number and higher accuracy of ideas as compared to other group processes, and

- leaving participants feeling accomplished (Delbecq et al., 1975).

Limitations of using the NGT to identify needs include:

- the inability to deviate from the initial focus once a session has started and
- requiring a structure that may feel restrictive to some participants (Delbecq et al., 1975).

Conclusion

The NGT is a highly structured qualitative tool that Extension professionals and other practitioners should consider using when assessing the needs of a target audience. When used in appropriate contexts, this group process is an effective way to pool the individual judgements of opinion leaders. The NGT provides practitioners with a prioritized list of audience needs that can be used to guide programmatic efforts within an Extension professional's community.

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Appendix A: *Conducting the Needs Assessment* Series Overview

Conducting the Needs Assessment #1: Introduction

General summary of needs assessments, including what a needs assessment is, the different phases, and tools to conduct a needs assessment.

Conducting the Needs Assessment #2: Using Needs Assessments in Extension Programming

Overview of using needs assessments as part of the Extension program planning process.

Conducting the Needs Assessment #3: Motivations, Barriers, and Objections

Information about the motivations, barriers, and objections to conducting needs assessments for Extension professionals and service providers.

Conducting the Needs Assessment #4: Audience Motivations, Barriers, and Objections

Information about the motivations, barriers, and objections that clientele and communities may have for participating or buying-in to a needs assessment.

Conducting the Needs Assessment #5: Phase 1—Preassessment

Introduction to the Preassessment phase of conducting a needs assessment, including defining the purpose, management, identifying existing information, and determining the appropriate methods.

Conducting the Needs Assessment #6: Phase 2—Assessment

Introduction to the Assessment phase of conducting a needs assessment, including gathering and analyzing all data.

Conducting the Needs Assessment #7: Phase 3—Postassessment

Introduction to the Postassessment phase of conducting a needs assessment, including setting priorities, considering solutions, communicating results, and evaluating the needs assessment.

Conducting the Needs Assessment #8: The Borich Model

Overview of using the Borich Model to conduct a needs assessment.

Conducting the Needs Assessment #9: The Nominal Group Technique

Overview of using the Nominal Group Technique to conduct a needs assessment.

Conducting the Needs Assessment #10: The Delphi Technique

Overview of using the Delphi Technique to conduct a needs assessment.

Conducting the Needs Assessment #11: The Causal Analysis Technique

Overview of using the Causal Analysis Technique to conduct a needs assessment.