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## THE APPLICATION OF NOMINAL GROUP TECHNIQUE AS A DECISION MAKING TOOL

## <sup>1</sup>Odu O. Godwin, and <sup>2</sup>Okereke N.

<sup>1</sup>Department of Mechanical & Production Engineering, Delta State University, Abraka, Oleh <sup>2</sup>Department of Mechanical & Production Engineering, Delta State University, Abraka, Oleh E-mail:odugodwin@gmail.com, ndububa.okereke@yahoo.co.uk

### ABSTRACT

Decision-making has always been a problem to decision makers. Though the problem of relative importance of issues or criteria has been a major concern. In practice, it is difficult even for an individual as a decision maker to arrive at a consensus. Similar in format to a focus group, the nominal group technique is essentially an organized discussion with a small group of participants. This paper describes and demonstrates how nominal group technique can be adopted as a decision tool in solving problems relating to relative importance of issues. The benefits associated with it were equally discussed.

**Keywords**: Nominal group technique, Team, Decision-making, Group discussion, Ideas Ranking, prioritized.

## INTRODUCTION

The nominal group technique (NGT) is an excellent tool that enables everyone to participate in process development. Decision making and problem solving in groups is absolutely empowering, however sometimes shouters and dominants may take over the process. All groups find that much of their responsibilities center around exploring various options related to issues for the organization and making decisions that provide direction for the group. Generating ideas, understanding each option and the impact it would have on the decision making choices and setting priorities are functions that require skill from the leader. The nominal group technique is an effective way to make pooled judgments or decisions in groups which meet face to face (Delbecq et al. 1975).

This technique is very effective in generating a large quantity of creative new ideas. It is designed to allow every member of the group to express their ideas and minimizes the influence of other participants (Julie et al. 2004). The technique also ensures that even the shy and intimidated has an equal impact in the process outcome and it can be used not just for consensus decision making and problem solving but also for priority settings, strategy building, etc.

### **Delphi Method or Nominal Group Technique?**

The Delphi Method "is effective in improving and clarifying the collective judgment of experts" (Cornish, 2004). Any expert around the world can be included in the Delphi Method. The NGT technique on the other hand is "a structured method for group brainstorming that encourages contributions from everyone". Nominal group technique (NGT) is therefore, a weighted ranking method that enables a group to generate and prioritize a large number of

issues within a structure that gives everyone an equal voice. The tool is called nominal because there is limited interaction between members of the group during the NGT process. NGT can be compared best to focus groups, the Delphi method, and brainstorming. However, it is more structured because a five step process is followed resulting in a list of potential ideas and responses to the issues in question (Amnda et al.). This method includes a facilitator and a small group of 9 -12 individuals who work as a team to find the strengths, weaknesses, opportunities, and threats of a particular issue. Unlike other methods where individuals can dominate the discussion or decisions, NGT encourages group involvement.

# When should a Team Use Nominal Group Technique?

A team can use nominal group technique when it needs to create a list of options and rank them, using NGT effectively neutralizes the domination of the loudest person, or the person with the most authority, over the decision-making process (Rafikul 2010). This tool can also help a team achieve consensus about the relative importance of issues. In particular, a team should use NGT especially when some group members are more vocal than others; when some members think better when it is quiet; when there is some concern about members not participating; when some or all the group members are new to the team; when the team is struck in disagreement; and when issues are controversial.

# **Benefits of NGT**

Nominal group technique is a good tool to use when dealing with controversial or emotional issues, or when a group is stuck. It is generally useful when you need to

- Reduce the number of issues for easier handling
- ✤ Get input from all team members
- Provide focused effort on topics of importance
- Identifying issues and opportunities
- Making collective decisions for use in parks and recreation planning and management
- Gaining insight into group issues and behaviours.
- Rank items in priority order

# The Procedures for NGT

Here's The Nominal Group Technique in the following steps:

# Step 1: Introduce and Clarify the Issue to Addressed by the Team

Write the question as an issue statement which defines the issue in general but does not offer solutions. Allow for clarification, but do not let the group engage in a discussion of the issue itself. Remember to define unclear terms. Participants should also be assured there are lots of alternatives and there is not "one right answer". The statement should be written on flip chart paper so all group members can see it.

### Step 2: Silent Idea Generation

This first step is designed to allow participants time to generate ideas and/or possible solutions to a given problem. Participants are given worksheets with the problem statement printed at the top and are asked to write their own ideas. They are discouraged from discussing with their peers. It is an individual exercise that stimulates serious thinking, creativity and objectivity. Depending on the complexity of the topic 5 to 10 minutes should be allowed for the silent process.

## Step 3: Round-Robin Reporting of Ideas

In this second step participants share their ideas with the group. All participants' ideas are listed on a flipchart, using their exact words. Each idea is labeled with a letter of the alphabet. This labeling makes the ranking of solutions easier in the last step. The purpose of "round-robin reporting" is to encourage everyone to present ideas, particularly for intimidated, shyer participants who may feel overwhelmed by the most dominant participants Delbecq et al. 1971).

## **Step 4: Discussion for clarification**

This step provides an opportunity for open discussion and clarification of all the generated ideas Participants elaborate ideas, clarify meaning of words and phrases, which appear, on the worksheets.

## Step 5: The ranking of problem solutions

The purpose of this final phase of the nominal group technique is to combine the ideas and opinions of individual members to determine the relative importance of the problems or solutions that have been identified. During this step each group member records five items of highest priority from those listed on the flipchart. They write one phrase and the identifying letter of the alphabet on each card. Then group members are asked to identify the items of highest importance and rank it as 5, the next highest importance as 4, and so on.

### The Application of Nominal Group Technique as a Decision Making Tool

Alternatively, the ranking of ideas can also be done independently. Each team member writes down the items by their letter designations and assigns them a numeric value based on his or her judgment of what is most important and what is least important. This means that the highest number is assigned to the most important idea and the least the lowest to the least important idea. For instance, if there are 7 items lettered A to G, the most important receives a 7 and the least important, a 1.



Assign letters to ideas
Rank ideas independently
Collate the rankings
Perform a sanity check
Add the rankings
0 Rewrite the list in priority order

Fig, 1 Define the Issue and Generate ideas

Fig, 2 Make the Selection

# Application of NGT

Nominal group technique is a very tool in a lot of applications. This includes:

- ✓ Decision making
- ✓ Strategic planning
- ✓ Policy development
- ✓ Goal formulation
- $\checkmark\,$  Identifying strategic problems and developing appropriate and innovative programs to solve them
- ✓ Determination research items

An example of nominal group technique is that of a team struggling with some problems in the workplace. The members performed NGT in figure 1, which identified the following issues:

- A. Ineffective organizational structure
- B. Poor distribution of office mail
- C. Lack of training
- D. Lack of feedback on reports to management
- E. Poor communications within and outside the office
- F. Poor attitude to work.
- G. Unclear mission and objective

The team has some opinionated members who think they know the most important problem, but several team members, however, are not vocalizing their position. The best option therefore, is to use NGT in figure 2 to prioritize the issues.

Each team member then writes the letter A through G on a flipchart provided by the moderator. Then, each member ranks each issue from 1 to 7 (with the most important receiving 7 and the least important receiving 1). Making sure each number is used only once. The results can be summarized as shown in table 1.1.

Issue	Dr. Akinyemi	Mr. Okoh	Engr. Edward	Maj Longe	Pastor Onome	Total	Priority
Α	6	7	6	4	2	25	1
В	7	1	5	2	4	19	5
С	4	6	2	6	5	23	3
D	5	3	7	1	6	22	4
E	2	2	1	4	3	12	7
F	1	5	4	5	1	16	6
G	3	4	3	7	7	24	2

 Table 1.1 Nominal Group Technique Results

Using NGT, the issues presented were prioritized in order of relative importance as shown below:

- A. Ineffective organizational structure
- G. Unclear mission and objective
- C. Lack of training
- D. Lack of feedback on report to management
- B. Poor distribution of office mail
- F. Poor attitude to work
- G. Unclear mission and objective

### CONCLUSION

The reasons behind those solutions, the knowledge, the judgments, the feelings and perceptions are ingredients that make the process powerful. Participatory processes are beneficial to individuals and groups as they increase confidence and commitment, provide opportunities to utilize multiple talents, increase team capacity to work together and tackle difficult tasks. The nominal group technique is used to engage in consensus planning for the purpose of prioritizing issues (Evaluation Group 2007). With the example given above, the nominal group technique can be easily applied to any decision- making and arriving at a consensus in deciding the best option in any issue or problem. The NGT generates a greater number of ideas than the traditional group discussions. It also balances the influence of

individuals by limiting the power of opinion makers. Lastly, the technique typically provides a greater closure than can be obtained through group discussion.

### REFERENCES

- 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. Glenview IL: Scott Foresman & Company.
- Department of Health and Human Services: Gaining Consensus among Stakeholder through the Nominal Group Technique; No. 7, 2006.

http://www.cdc.gov/healthyyouth/evaluation/pdf/brief7.pdf

- Julie K. Clark and Taylor V. Stein (2004). Applying the Nominal Group Technique to Recreation Planning on Public Natural Areas. Journal of Park and Recreation Administration. Vol. 22, No. 1, pp. 1-22.
- WBI Evaluation Group (2007). Needs Assessment Knowledge Base. Nominal Group Technique. <u>http://siteresources.worldbank.org/WBI/Resources/213798-</u> <u>1194538727144/7Final-Nominal Group Technique.pdf</u>.
- Module 3, Decision-Making Tools. Basic Tools for Process Improvement. <u>http://www.balancedscorecard.org/portals/0/pdf/descntls.pdf</u>
- Rafikul Islam (2010). Group decision making through nominal group technique: Am empirical Study. Journal of International Business and Entrepreneurship Development, vol. 5, No. 2, pp. 134-153.
- Nominal Group Technique Community and Economic Development. University of Illinois Extension, College of Agricultural, Consumer and Environmental Sciences. www.communitydevelopment.uiuc.edu
- Delbecq A. L. and Van de Ven (1971). Nominal Group Technique. Creativity & Innovation, Mycoted Sciences and Technology.<u>http://www.mycoted.com/Nominal\_Group\_Technique</u>
- Cornish, Edward (2004). *Futuring The Exploration of the Future*. Maryland: World Future Society.
- Kamberi (2011). Dephi Method or Nominal Group Technique? CTU Course Assignment. Blogs. http://cs855sk.blogspot.com/2011/01/delphi-method-or-nominal-group.html
- Amanda Keir, Andrea Von Albedyhll. Nominal Group Technique: A Guide to Research Tools. Recreation Tourism Research Institute. <u>http://web.viu.ca/rtri/Nominal%20Group%20Technique.pdf</u>