Tools for Making Decisions

• Multivoting
  > Reduces long lists of ideas
  > Identifies important items

• Nominal Group Technique
  > Generates ideas
  > Prioritizes items
What Is Multivoting?

A group decision-making technique used to reduce a long list of items to a manageable number by means of a structured series of votes.
Benefits of Multivoting

- Reduces a list
- Prioritizes a list
- Identifies important items
Multivoting Procedures

Step 1 - Work from a large list

Step 2 - Assign letter to each item

Step 3 - Vote

Step 4 - Tally the votes

Step 5 - Repeat
# Multivoting Rule of Thumb

<table>
<thead>
<tr>
<th>Number on Team</th>
<th>Eliminate items with</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 or fewer</td>
<td>0, 1, or 2 votes</td>
</tr>
<tr>
<td>6 to 15</td>
<td>3 or fewer votes</td>
</tr>
<tr>
<td>more than 15</td>
<td>4 or fewer votes</td>
</tr>
</tbody>
</table>
## Multivoting Example

### First Vote Tally

<table>
<thead>
<tr>
<th></th>
<th>A. No agenda</th>
<th>I. Problems not mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B. No clear objectives</td>
<td>J. Interrupted by phone calls</td>
</tr>
<tr>
<td></td>
<td>C. Going off on tangents</td>
<td>K. Few meaningful metrics</td>
</tr>
<tr>
<td></td>
<td>D. Extraneous topics</td>
<td>L. Interrupted by visitors</td>
</tr>
<tr>
<td></td>
<td>E. Too many &quot;sea stories&quot;</td>
<td>M. No administrative support</td>
</tr>
<tr>
<td></td>
<td>F. Vital members missing from meeting</td>
<td>N. Meetings extended beyond allotted time</td>
</tr>
<tr>
<td></td>
<td>G. Not enough preparation for meetings</td>
<td>O. Members distracted by pressing operations</td>
</tr>
<tr>
<td></td>
<td>H. Too much &quot;dog and pony&quot;</td>
<td>P. Unclear charts</td>
</tr>
</tbody>
</table>

DECISION-MAKING TOOLS

VIEWGRAPH 6
Multivoting Example

Second Vote Tally

B. No clear objectives
F. Vital members missing from meeting
G. Not enough preparation for meetings
H. Too much "dog and pony"
J. Interrupted by phone calls
L. Interrupted by visitors
N. Meetings extended beyond allotted time
O. Members distracted by pressing operations
Multivoting Exercise 1

SIGNS OF FEAR IN THE WORKPLACE

a. Flooded with detail
b. "Don't rock the boat"
c. Mixed messages
d. Attacks/defensiveness
e. People afraid to say "I don't know"
f. Chronic indecision
g. "This too shall pass"
h. News always good
i. Withholding information
j. Changing subject
k. Self-protective behaviors
l. Hidden agenda syndrome
m. Turf battles
n. Not willing to accept responsibility

o. We vs. they
p. Resisting requests
q. Tampering
r. Staffing redundancies
s. Constantly changing policies
t. Myopic vision
u. Isolation
v. Micromanaging
w. Goals without a plan for achieving them
x. Blame others
y. Denial
z. Resistance to new knowledge
aa. People afraid to ask questions
ab. "This is good for my people, not for me"
ac. Concern with return on investment
ad. Focus on grades, instead of learning
ae. Lack of new ideas
af. Fear that some work can be done by fewer people
ag. Resistance to change
ah. Avoidance of risk-taking
ai. "Just doing my job"
aj. Stress
ak. Recurrent absenteeism
al. Widespread dissatisfaction
am. Deadline anxiety
an. Enforcement approach to rules
ao. Turnover of creative thinkers

Source: Managing Fear in the Workplace, TQLO Publication No. 93-01
Multivoting Exercise Tally Sheet

A __________  M __________  Y __________  AK __________
B __________  N __________  Z __________  AL __________
C __________  O __________  AA __________  AM __________
D __________  P __________  AB __________  AN __________
E __________  Q __________  AC __________  AO __________
F __________  R __________  AD __________  AP __________
G __________  S __________  AE __________  AQ __________
H __________  T __________  AF __________  AR __________
I __________  U __________  AG __________  AS __________
J __________  V __________  AH __________  AT __________
K __________  W __________  AI __________  AU __________
L __________  X __________  AJ __________  AV __________
Multivoting Exercise 2

Voting Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petty Officer Smith</td>
<td>A, B, D, I, N, R</td>
</tr>
<tr>
<td>Mr. Avery</td>
<td>C, D, I, N, Q, R</td>
</tr>
<tr>
<td>Lt. Tam</td>
<td>B, J, L, N, R, Q</td>
</tr>
<tr>
<td>Ms. Matsumoto</td>
<td>A, C, D, I, N, R</td>
</tr>
<tr>
<td>Sgt. Bedsole</td>
<td>E, G, L, N, P, Q</td>
</tr>
<tr>
<td>Petty Officer Browne</td>
<td>C, E, H, K, M, O</td>
</tr>
</tbody>
</table>
Multivoting Exercise 2

## Tally Sheet

<table>
<thead>
<tr>
<th>A</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>II</td>
</tr>
<tr>
<td>C</td>
<td>III</td>
</tr>
<tr>
<td>D</td>
<td>III</td>
</tr>
<tr>
<td>E</td>
<td>II</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>G</td>
<td>I</td>
</tr>
<tr>
<td>H</td>
<td>I</td>
</tr>
<tr>
<td>I</td>
<td>III</td>
</tr>
<tr>
<td>J</td>
<td>I</td>
</tr>
<tr>
<td>K</td>
<td>I</td>
</tr>
<tr>
<td>L</td>
<td>II</td>
</tr>
<tr>
<td>M</td>
<td>I</td>
</tr>
</tbody>
</table>
| N | ||#
| O | I |
| P | I |
| Q | III |
| R | III

DECISION-MAKING TOOLS

VIEWGRAPH 11
What Is Nominal Group Technique?

A weighted ranking method that allows a group to generate and prioritize a large number of issues within a structure that gives everyone an equal voice.
Benefits of Using NGT

- Reduces the number of issues
- All team members participate
- Rank orders items
NGT Part I - Define the Issue and Generate Ideas

- Define the issue
- Generate ideas
- Collect ideas
- Clarify ideas
- Combine ideas
NGT Part II - Make the Selection

- Assign letters to ideas
- Rank ideas independently
- Collate the rankings
- Add the rankings
- Rewrite the list in priority order
- Perform a sanity check
## NGT Example 1

### Results

<table>
<thead>
<tr>
<th>Issue</th>
<th>PO1</th>
<th>MAJ</th>
<th>SGT</th>
<th>MR</th>
<th>ENS</th>
<th>Total</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>5</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>C</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>23</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>E</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>26</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>7</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>G</td>
<td>4</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>20</td>
<td>5</td>
</tr>
</tbody>
</table>
NGT Example 1

Prioritization

E. Unclear mission and objectives
A. Ineffective organizational structure
C. Lack of training
F. Poor distribution of office mail
G. Lack of feedback on reports to management
B. Poor communications outside the office
D. Poor communications within the office
NGT Example 2

Ranking and Prioritization

RANKING:

A. Haven't set the anchor properly  6, 7, 6, 4, 4, 7, 4 = 38
B. Not enough chain out  5, 5, 7, 5, 5, 6, 7 = 4
C. Bottom not assessed properly  7, 6, 5, 6, 7, 5, 6 = 42
D. Ship isn't steaming at anchor properly  1, 1, 1, 2, 1, 2, 1 = 9
E. Piling too much anchor chain on the flukes  2, 2, 4, 3, 3, 3, 3 = 20
F. Inadequate navigational fixes  3, 4, 3, 7, 6, 4, 2 = 29
G. QMs not notifying CDO of weather changes  4, 3, 2, 1, 2, 1, 5 = 18

PRIORITIZATION:  C, B, A, F, E, G, D