

# Nominal Group Process

## Steps

- Individual Brainstorming
- Round-Robin Listing
- Individual Ranking
- Tabulation of Ranks
- Discussion
- Second Round of Individual Ranking
- Tabulation of Ranks

## Advantages

Gives everyone an equal voice and equal vote  
Decreases emotion regarding controversial issues  
Can be used for problem identification and resolution  
or goal-setting

## Disadvantages

Is time consuming  
Does not encourage creativity

# **Decision Making Tools:**

**Nominal Group  
Technique**

# *Nominal Group Technique*

DoDEA School Improvement Module: *Decision-Making Tools*

**I. Purpose/Overview:** This technique gives everyone an equal voice in decision making. Team members tend to be more committed to a decision if they have input, and the decisions tend to be of better quality. The group generates more unique ideas, more total ideas, and higher quality ideas through the unique combination of verbal and nonverbal group interaction. School Improvement Teams use NGT to generate and choose actions for improvement and to plan for continuous improvement.

## **II. Key Ideas and Concepts:**

- Nominal Group Technique is a tool especially helpful for generating and choosing actions to improve a system
- Internal group influences can be minimized.
- It promotes team member commitment to action plans by involving all members in decision making.
- The tool is most powerful when a team is attempting to generate an action for improvement.
- The list of ideas for improvement can be revisited to pick an alternate plan if the first plan did not work.
- Using the technique creates a structured meeting to help groups make decisions.

## **III. Outcomes:**

- generate and choose actions for improvement
- generate solutions to a root cause.

## **IV. Time: 60 minutes**

## **V. Materials:**

### **A. Handouts**

- Nominal Group Technique Process (Facilitator's Copy)
- Article: "Nominal Group Technique"

### **B. Overheads**

- Nominal Group Technique Process
- Fishbone (used in the example)
- Actions Generated..... (used in the example)

### **C. Charts**

- chart stand
- chart paper

**D. Other**

- markers
- tape

**VI. Bibliography**

Delbecq, Andre L. et al. *Nominal group technique*. Middleton, WI: Green Brier Press. 1986

# *Nominal Group Technique*

## Facilitation Directions

School Improvement Module: Decision-Making Tools

### I. Key Ideas and Concepts:

- Nominal Group Technique is a tool especially helpful for generating and choosing actions to improve a system
- Internal group influences can be minimized.
- It promotes team member commitment to action plans by involving all members in decision making.
- The tool is most powerful when a team is attempting to generate an action for improvement.
- The list of ideas for improvement can be revisited to pick an alternate plan if the first plan did not work.
- Using the technique creates a structured meeting to help groups make decisions.

### II. Outcomes:

- generate and choose actions for improvement
- utilize the technique to generate solutions to a root cause.

### III. Agenda:

- Activator
- Steps for the Nominal Group Technique Process
- Example
- Activity
- Summary

### IV. Facilitation Directions:

#### A. Activator: (5 minutes)

- Have you ever sat in a meeting and you had to make a decision about something?
- Did it take forever and the few vocal ones got their way?
- Today, we are going to work with a technique which will give even the quietest members among us an equal opportunity to provide input into the decision-making process.

#### B. Explain the steps of Nominal Group Technique: (10 minutes)

Note to Facilitator: You will want to refer to the facilitator's copy of the Nominal Group Technique Process handout and the Nominal Group Technique overhead in the handout section as you explain this process.

**C. Example of Using the Nominal Group Technique: (5 minutes)**

- The cause of a problem had been identified using a tool called Fishbone. In this example, the problem was a low integration of state test objectives into the curriculum.

*Note to Facilitator: Show the "Fishbone" overhead*

- The team identified a root cause for this problem as- "Teachers have no knowledge on how to integrate the state test objectives.
- The defined area of opportunity for the NGT became- *Ways teachers can get the knowledge to integrate state test objectives.*
- The team went through the steps of the Nominal Group Technique.
- The following actions were generated and ranked by the group:

*Note to the Facilitator: Show Action Items Generated using Nominal Group Technique (OII)*

**D. Options for Using the Nominal Group Technique: (30 minutes)**

*Note to Facilitator: Groups will need chart paper, tape and markers for the activity.*

**Option 1-**

- Your team has studied the problem- "19% of the students in the school scored below standard on a state assessment test.
- You have identified one of the major causes as- "Writing is not stressed in all curricular areas."
- Your defined opportunity is- "How can we stress writing in all curricular areas?"
- Use the Nominal Group Technique to identify some actions to take for improvement.

**Option 2-**

- Identify a problem in your school and identify possible causes using the "Fishbone" or other decision-making tool.
- Record the defined opportunity (root cause) identified on chart paper.
- Use Nominal Group Technique to identify some actions to take for improvement.

**V. Review, Summary, Questions: (10 minutes)**

1. What did you learn about the process?
2. What concerns do you have about the process?
3. How and when might you use this technique with the School Improvement Process again?

**VI. Suggestions for Practice and Implementation:**

Great ideas often do not get implemented because there is no plan.

- Determine a date to meet again
- Assign the group to read or review the School Improvement Process: Action Plans.

# Nominal Group Technique Process

## Facilitator's Copy

(Note to the Facilitator:

- You may want to use the overhead or list the steps on a chart.
- If you have time, it would be helpful to read the article, "*Nominal Group Technique* to help you with questions.

### 1. State the defined opportunity

This is an identified cause of a problem using a previous problem-solving technique

### 2. Silently generate action items using a few words or a short phrase on how to make an improvement. (5 min.)

### 3. State and record ideas (round-robin)

- Each member takes a turn giving an idea until all ideas have been recorded on chart paper
- Number the ideas

### 4. Discuss each item on the list for clarification.

### 5. Establish criteria for voting.

(e.g. must have union acceptance, must be within the team's authority to implement, must have quantifiable results or based on research.)

### 6. Conduct a preliminary vote

- individuals choose items from the generated list which are most important to them  
(5 choices if 10 items are on the list; 9 choices if 20 are on the list)
- write each idea on a separate card
  - a. Left top corner- Put the number of the item from the generated list
  - b. Middle- Write out the generated idea

### 7. Rank order the cards

a. Right bottom corner- Rank order the item (i.e. 5 is the highest and 1 is the lowest)

8. Record votes

- a. Pass cards to the facilitator of the group.
- b. Facilitator records the votes on the chart beside each numbered item

9. Discuss results

- a. Finding item with the highest ranking
- b. Looking for inconsistent patterns (**items which received high and low rankings**)

Note to the Facilitator:

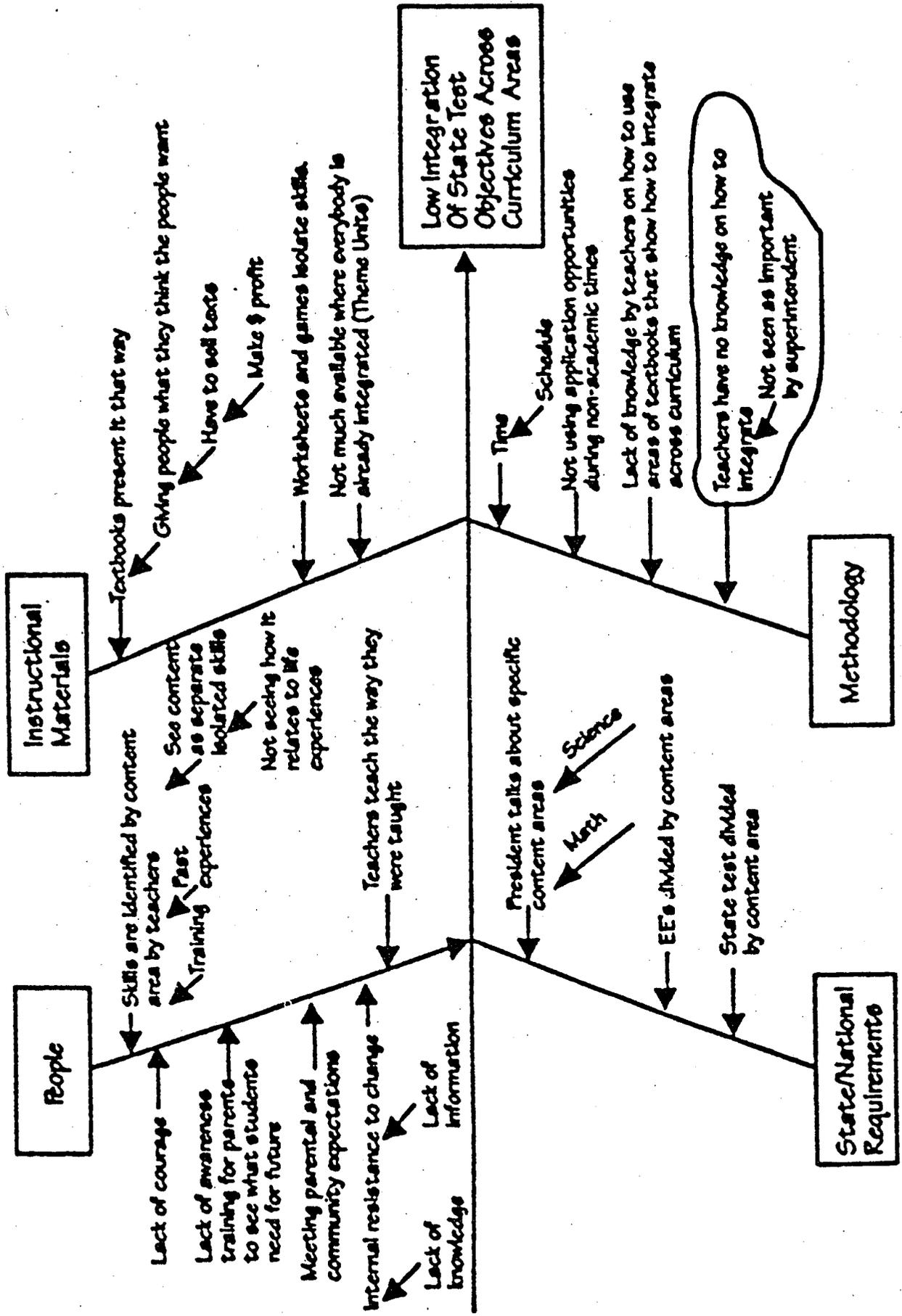
- Do not add rankings together. They have no numerical value.
- Look for patterns of high rankings as the first choice/s.
- If inconsistent patterns exist, you will want to discuss the item and possibly include the item in a final vote.
- If each team member can not support the action item chosen in the preliminary vote, the team will conduct a final vote.
- The final vote would include those items on the list that received high ranking and any other items that team members have felt strongly about including again. i.e. items that received inconsistent rankings
- Items with inconsistent rankings should be included in the final vote.
- Voting is the same as in step 6.

Adapted from *Group Techniques for Program Training*  
by Andre L. Delbecq

## ***Nominal Group Technique Process***

- 1. State the defined opportunity**
- 2. Silently generate action items using a few words or a short phrase on how to make an improvement. (5 min.)**
- 3. State and record ideas (round-robin)**
- 4. Discuss each item on the list for clarification.**
- 5. Establish criteria for voting.**  
**(e.g. must have union acceptance, must be within the team's authority to implement, must have quantifiable results, or based on research.)**
- 6. Conduct a preliminary vote**
- 7. Rank order the cards**
- 8. Record votes**
- 9. Discuss results**

Adapted from *Group Techniques for Program Training*  
by Andre L. Delbecq



Copied from Statistical Methods for Quality Improvement by Hitoshi Kume

## ***ACTIONS GENERAED USING NOMINAL GROUP TECHNIQUE***

1. Establish a weekly training program for teachers. 3-3-2-3-2
2. Set up a mentoring program. 1-2-1
3. Subscribe to professional journals for teachers. 1
4. Write a manual with examples of lesson plans that integrate objectives. 2-3-1-3
5. Establish an expert in each building
6. Establish an expert at each grade level
7. Train all new teachers to integrate objectives. 2-1
8. Develop a new lesson planning sheet that includes hints for integration of test objectives.

Inconsistent voting patterns that have received both high and low rankings were discussed for a possible re-vote. They had given the highest rankings to item 1 on the list. The team and agreed to start with this action.

Adapted from *Group Techniques for Program Training*  
by Andre L. Delbecq

## NOMINAL GROUP TECHNIQUE



### WHAT IS IT?

Nominal group technique, developed by Andre L. Delbecq and Andrew H. Van de Ven in 1968,<sup>1</sup> is a structured group process used to help make decisions. Often one or two dominant members of a team seem to get their way. Nominal group technique (NGT) gives everyone on the team an equal voice in decision making. Team members tend to be more committed to a decision if they have a say in making it, and the decisions tend to be of better quality.

The purpose of NGT is to help the team make better decisions. It has been shown that when using NGT, a group generates more unique ideas, more total ideas, and higher quality ideas. This is accomplished through the unique combination of verbal and nonverbal group interaction.

Education improvement teams use NGT to generate and choose actions for improvement and to plan for continuous improvement.

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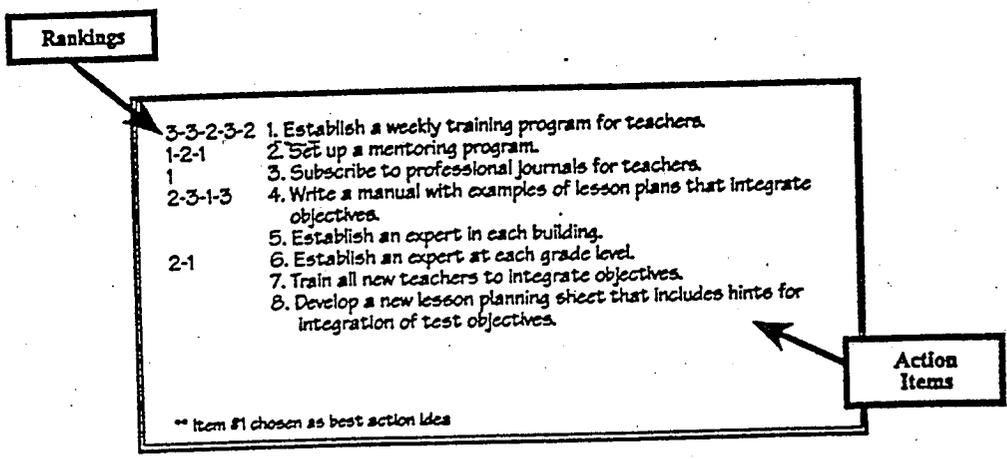
<sup>1</sup> This section draws heavily from Andre L. Delbecq et al, Group Techniques for Program Planning (Middleton, WI: Green Briar Press, 1986).



### WHAT DOES IT LOOK LIKE?

Because NGT is a structured group meeting used to help groups make decisions, it is difficult to show a "picture" of what it looks like. Shown below is the list of action items developed by a team. Next to each item are the rankings that each item received. An instructional delivery improvement team made this NGT to generate actions to address the root cause of "teachers have no knowledge on how to integrate state test objectives across curriculum."

Final  
unique



### WHEN IS IT USED?

Use NGT when you need to generate and choose a course of action for improvement. A team has identified the root cause of the problem, but identifying a course of action from the many alternatives is difficult.





## HOW IS IT MADE?

These steps are written under the assumption that NGT is being used to generate actions for improvement. However, NGT is useful any time a group needs to generate ideas and make a decision based on the list of ideas.

### 1. STATE THE DEFINED AREA OF OPPORTUNITY.

An area of opportunity (or problem) is identified in advance with the help of other quality tools such as Pareto diagrams, histograms, or control charts. In the example, the team has been studying instructional delivery in the classroom. They decided to focus their study on the integration of state test objectives into the curriculum. They found that teachers were not integrating these objectives across the curriculum but teaching them in isolation. Using a cause and effect diagram, the team identified the root cause for this problem to be that teachers had no knowledge on how to integrate the state test objectives. So the defined area of opportunity for doing the NGT is "lack of knowledge on how to integrate state test objectives." This area of opportunity statement should be displayed in the room so the team members can see it.

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### 2. SILENTLY GENERATE ACTION ITEMS.

Silently and independently, each team member writes down action items on how to make improvements. Ideas should be kept to a few words or a short phrase. The time limit for this step is five minutes.

### 3. STATE AND RECORD IDEAS.

In a round-robin fashion (going around the room) each team member gives one idea from his or her list. As the ideas are stated, a group leader or facilitator records the ideas on a flip chart or white board visible to the group. The round-robin process continues until each person has given all of his or her ideas. The recorder should not list duplicate ideas.

During this phase, team members are encouraged to "hitch hike." A person hitch-hikes by thinking of a new idea after hearing another member's idea. Everyone is encouraged to add new ideas to the list and to offer them on the next turn. In the example on the following page, the team has developed this list of improvement ideas by the end of this step.

1. Establish a weekly training program for teachers.
2. Set up a mentoring program.
3. Subscribe to professional journals for teachers.
4. Write a manual with examples of lesson plans that integrate objectives.
5. Establish an expert in each building.
6. Establish an expert at each grade level.
7. Train all new teachers to integrate objectives.
8. Develop a new lesson planning sheet that includes hints for integration of test objectives.

#### 4. DISCUSS EACH ITEM ON THE LIST.

For each item on the list from Step Three, allow an equal amount of time for group discussion. The objective here is to clarify each idea in case the wording is not clear. This time is not meant for winning arguments. This step should be led by a group leader or facilitator. The leader reads each idea aloud and asks if there are any questions of clarification or statements of agreement or disagreement. The leader is responsible for keeping the group moving through the list.

#### 5. ESTABLISH CRITERIA FOR VOTING.

Through open discussion, the team establishes a short list of criteria for choosing the most important items on the list from Step Three. It is important to establish criteria before voting so everyone will choose the best items based on the same criteria. These criteria should be important to the goals of the project and the company.

- a. Must be a project which can be implemented immediately.
- b. Must have the principal's support.

Examples of other possible criteria are: must have management acceptance, must have union acceptance, must be within the team's authority to implement, must have quantifiable results, must have high likelihood of success, or must be within budget.

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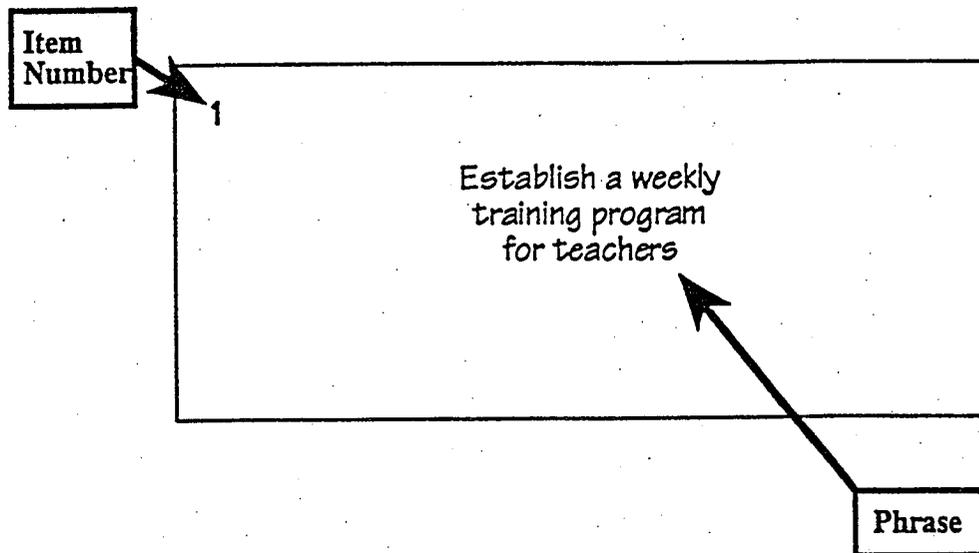
**6. CONDUCT A PRELIMINARY VOTE.**

So the team can move closer to a decision, a preliminary vote must be conducted. It is best if the group leader or facilitator leads this step.

**a. Individuals choose the items most important to them.**

From the list of ideas generated in Step Three, team members choose the five to nine most important ideas that in their opinions meet the established criteria (from Step Five). The team leader should decide exactly how many items will be chosen. For shorter lists five is good, but for longer lists, say 20 or more items, eight is a better number. Each person should write each idea chosen on a separate 3 x 5 index card. The card should include the item number (from the list) and the idea phrase. For instance, if item #1 from the example list has been chosen as an important idea, it is written on the card as follows:

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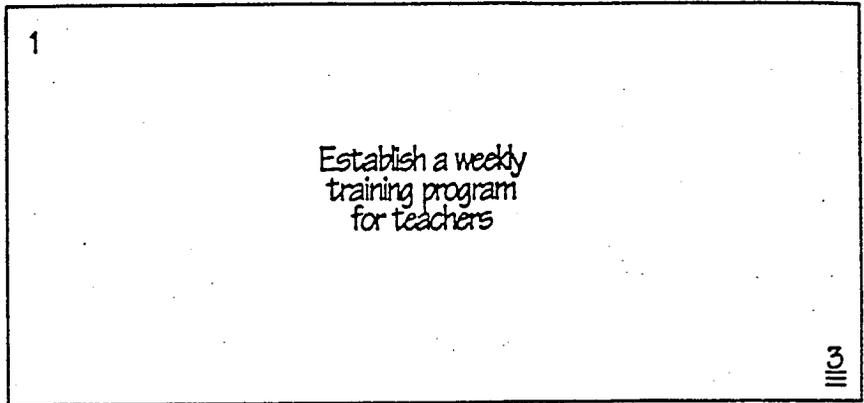


In the example, because only eight items were generated, each team member has chosen the three most important items on the list. Each idea has been written like the above example on a 3 x 5 index card.

**b. Rank order the cards.**

Each team member spreads his or her cards out on the table to see all the cards at once and to order the cards one through three. Start this process by choosing the most important card, giving this card a ranking of three. To record the ranking, the team member writes "3" in the lower right corner of the index card and underlines the number three times. For instance, if the card shown above had been ranked "3" by a team member, the card would look like this:

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To continue ranking, one chooses the most important card of the remaining two and gives it a ranking of two. The number two is written on the card in the lower right corner and underlined three times. This process continues until the last remaining card receives a ranking of one (least important of the three chosen).

When all the cards are ranked, team members should take time to review the rankings and make any changes.

**c. Record the votes.**

All the cards are passed to the group leader or facilitator. On the original list of ideas or on a separate sheet, the leader records the rankings received by each numbered item on the list. In the example, the leader has listed the item numbers on the flip chart and recorded the rankings beside the numbers. The example completed through this step is shown on the following page.

- |    |           |
|----|-----------|
| 1. | 3-3-2-3-2 |
| 2. | 1-2-1     |
| 3. | 1         |
| 4. | 2-3-1-3   |
| 5. |           |
| 6. |           |
| 7. | 2-1       |
| 8. |           |

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d. Discuss the results of the vote.

The results of the vote are discussed openly by the group. The purpose of this discussion is to find inconsistent voting patterns and to provide an opportunity to reconsider items that are thought to have received too few or too many votes. Inconsistent voting patterns refer to items that have received both high and low rankings.

In the example, item #1 on the list (establish a weekly training program for teachers) received the highest ranking. The team discussed the item and agreed with the results of the NGT.

If each team member cannot support the action item chosen by the preliminary vote, the team can conduct a final vote. This final vote would include those items on the list that received high ranking and any other items that team members have felt strongly about including. The voting procedure is the same as the rank ordering in Step Six, part b.

**Note: the rankings have no numerical value; therefore, they should not be added.**



## VARIATIONS

## DECISION MATRIX



### WHAT IS IT?

If final selection of an improvement idea is particularly complex, the voting procedure previously discussed may not be adequate. If this situation occurs, the decision matrix worksheet will help. A decision matrix is a sheet made up of columns and rows. It helps a team choose an improvement action to try out.

The decision matrix is best used in a group meeting. The format should be displayed so that everyone in the team can see it, since completion of the matrix is based on group discussion. The sheet can be copied on a writing board or transparency.

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# WHAT DOES IT LOOK LIKE?

A completed decision matrix worksheet for the previous example is shown below.

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EVALUATION CRITERIA											
Improvement Ideas	Can be Implemented		Principals		#3. Rating	(wt. <u>    </u> ) Weighted Rating	#4. Rating	(wt. <u>    </u> ) Weighted Rating	#5. Rating	(wt. <u>    </u> ) Weighted Rating	Total Weighted Rating
	#1. Rating	(wt. <u>10</u> ) Weighted Rating	#2. Rating	(wt. <u>9</u> ) Weighted Rating							
1. Weekly training for teachers	10	100	8	72							172
2. Mentor program	4	40	7	63							103
3. Professional journals	6	60	2	18							78
4. Manual	7	70	8	72							142
5. Expert per building	1	10	1	9							19
6. Expert per grade	1	10	1	9							19
7. New teacher training	0	0	0	0							0
8. Lesson plan sheet	5	50	5	45							95
9.											
10.											



## HOW IS IT MADE?

The decision matrix form is used by following the steps listed below.

**1. LIST THE POSSIBLE IMPROVEMENT ACTIONS DOWN THE LEFT COLUMN.**

**2. WRITE THE CRITERIA ACROSS THE TOP OF THE SHEET.**

Write the criteria in the numbered spaces across the top of the matrix. Although the form has room for only five criteria, more columns may be added.

**3. WEIGHT EACH CRITERION.**

Through team discussion, weight each criterion from 1 to 10, with 10 as the most important. The weight is recorded in parentheses at the top of each column.

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**4. RATE EACH IDEA.**

Each idea listed along the left side is rated against each criterion. The ideas are rated using the same scale of 1 to 10, with 10 as the most important. If an idea measures up well against a criterion, it receives a high rating, such as 9 or 10. If an idea does not measure up well against a criterion, it receives a lower rating such as 3 or 4. The rating for each idea is entered in the rating column under each criterion.

**5. MULTIPLY THE RATINGS AND WEIGHTING FACTORS.**

Under each criterion, multiply the weighting factor for the criterion by the rating given each idea. Write the product of each multiplication in the weighted rating column for each criterion for each improvement idea.

**6. ADD THE WEIGHTED RATINGS.**

Add the weighted ratings for each idea by adding all the weighted ratings across the row for each idea. Write the total weighted rating under the last column marked "total weighted rating." The idea that receives the highest total rating is declared the best idea.