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EPA

Total Quality Management

Making It Relevant

Total Quality Management—
Making It Relevant
EPA-OAR

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Introduction by William G. Rosenberg

Total quality management (TQM) is a way to get work done—better. More specifically at OAR, quality is creating windows of opportunity to achieve significant environmental results. This includes creating an effective coalition through outreach and guidance to the public and other stakeholders to ensure the passage of regulations. Let me tell you why all of this is extremely relevant to everyone at EPA, especially now. In a *Wall Street Journal*/NBC News Poll released in August, 1991 eight out of ten Americans identified themselves as "environmentalists." A recent Roper Poll reported that 85 percent of all Americans are *seriously concerned* about the environment. If we are to deliver on our promise to be the first line of defense in preventing and solving environmental problems, we have to find a better way to do what we already do well.

President Bush called OAR's Clean Air Act "the most significant air pollution legislation in our nation's history." Our unique challenge is to implement that demanding legislation successfully while also moving forward on an ambitious agenda for indoor air quality, and radon and radiation protection. This presents a challenge unprecedented in the Agency's history, and an opportunity to put in place an environmental legacy of which we can be proud. That's where a commonly shared approach to work can help. I've discovered that TQM is neither mystery nor magic. It is a set of quality principles and commonsense tools and techniques. The quality principles are

- Customer focus
- Total involvement
- Measurement
- Systematic support
- Continuous improvement

They provide a blueprint to develop a coordinated strategy, driven by top management, aimed at harnessing resources and focusing their use to achieve organizational goals. The tools and techniques are numerous and flexible. They can help us continue to do right things right more easily. It's very possible that you're "doing TQM" already and just not calling it that.

Some months ago, the members of OAR's executive staff were trained in and used the quality principles, tools, and techniques to analyze how we've gotten work done over the past few years. We talked about what we've done well and why, and what we need to do better. As a result of this work, we initiated a number of projects aimed at improving critical processes within OAR. The offices

throughout OAR have been asked to develop their own plans to provide improvement opportunities for you. You should be hearing more details about local plans and efforts soon.

However, you don't need permission or approval to work better now. There are a number of actions you can take individually to help OAR deliver on its commitment to quality.

1. Educate yourself on the quality principles. This document should help.

2. Identify those constituents or clients who receive the outputs of your work. In a true sense, these people are your customers. Even if they are regulated constituencies, they should be satisfied with your working relationship and have an understanding of what's expected of them. In other words, they should feel able to work with what you give them. (This is not to say they will be happy!) Experiment with the alignment questions under the customer focus principle to help in your negotiations.

3. Try the seven quality tools detailed in this document—brainstorming, multivoting, force-field analysis, action plan, *why* technique, fishbone diagram, and pareto analysis. These tools will help you expedite meetings, make decisions, identify obstacles to change, ensure accountability, and find root causes of problems getting in the way of constituent satisfaction.

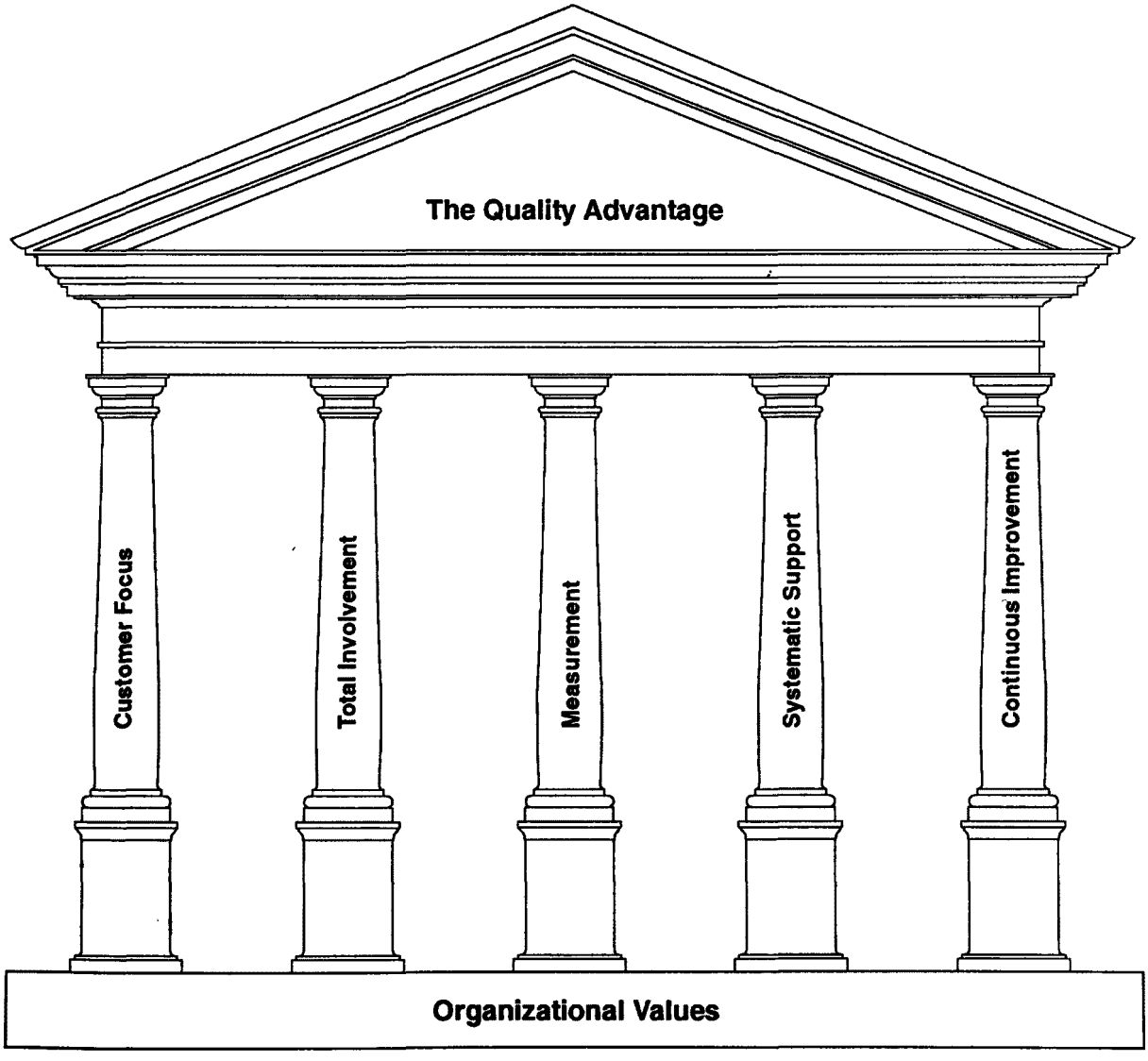
An environmentally awakened American public has provided impetus for the Clean Air Act. You can bet that they are not going back to sleep and that they will continue to drive far-reaching regulatory change. In the months and years ahead, OAR needs to be ready to play an even bigger role in creating windows of opportunity for significant environmental improvement.

The Quality Principles

For the principles of quality to become the way we get work done at OAR, we have to break out of established ways of thinking and acting. Accomplishing breakthrough regulations can be aided by knowledge of and dedication to the five basic principles—or pillars—of quality.

- Customer focus
- Total involvement
- Measurement
- Systematic support
- Continuous improvement

These five principles, each with three corresponding dimensions, are explained in detail on the pages that follow.



Customer Focus

Meeting Requirements

Within OAR, we supply services, products, and information to one another. These exchanges link us as internal customers and suppliers. We can better meet the needs of our final, external customers when we work to meet the requirements of our internal customers.

Dimensions

1. External customer orientation

   Goal: OAR employees know who uses our services and products. We also know what those constituencies do with the outputs we supply.

2. Internal customer orientation

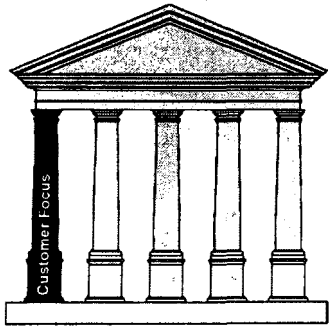
   Goal: OAR employees understand that we are customers of and suppliers to others within OAR. We understand that satisfying internal customer-supplier requirements affects the quality of the services and products provided to our external clients.

3. Trends in customer satisfaction

   Goal: OAR employees understand that the final judges of quality are the clients who use our outputs. We are concerned with the trends in their satisfaction. OAR places a high priority on being close to clients—responding to their needs, and dealing quickly and effectively with their problems.

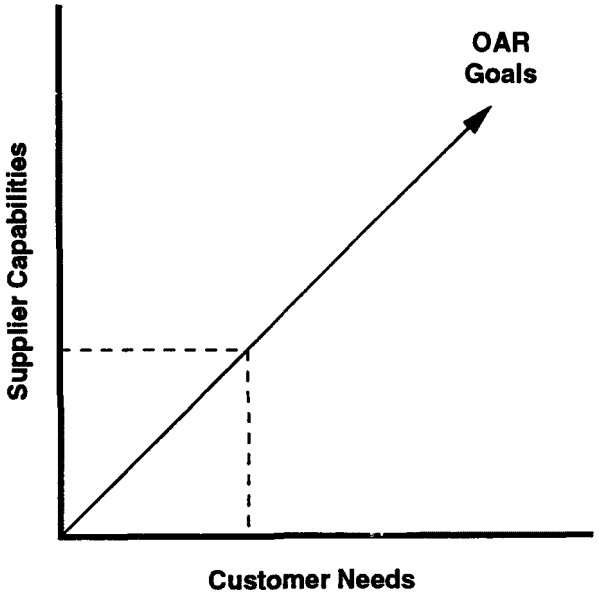
Making TQM Relevant

AIRS (Aerometric Information Retrieval System) is a good example of a quality improvement initiative sensitive to external customer concerns and needs. It is designed to be a user-friendly source of data and documentation on ambient air quality and point source emissions. AIRS represents a consolidation of a variety of existing systems. The improvements were driven, in part, by input from its users—the states, the regions, and local sources. Some of the input was received at the annual user conference—an important forum for soliciting customer-focused ideas for continuous improvement. AIRS is operated by the Technical Support Division of the Office of Air Quality Planning and Standards.



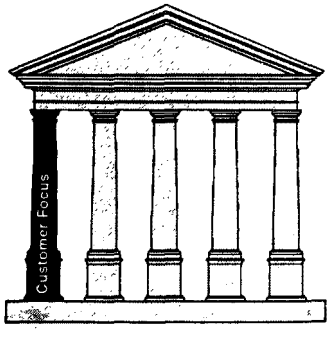
Customer-Supplier Alignment

Alignment, or the matching of supplier capabilities with customer needs, is a requisite of meeting their requirements. The process of alignment begins with a redefinition of the customer-supplier relationship. Rather than seeing each other as adversaries trying to take advantage of each other, customers and suppliers work together as collaborators to achieve alignment. That collaboration must also help promote the overall goals of OAR.



To help build customer-supplier alignment, identify your own customers and suppliers and meet with them to discuss and agree upon requirements. Try asking the following questions:

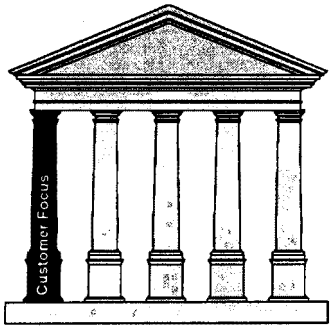
- What do you need from me?
- What do you do with what I give you?
- Are there any gaps between what I give you and what you need?



Making TQM Relevant

"It's a better situation when people who are adversaries can sit down at the table and talk about it rather than throw bricks at each other in courtrooms and the press."

Urvan R. Sternfels, President
National Petroleum Refiners Association
New York Times, September 23, 1991
"U.S. Agencies Use Negotiations to Pre-empt Lawsuits Over Rules"



Total Involvement

Taking Responsibility for Quality

Quality is not just the responsibility of management or quality control. Everyone in OAR must be involved in achieving quality.

Dimensions

1. Top-down leadership

   Goal: Quality principles are driven by senior management and administered by middle management. Management demonstrates its commitment to the principles by educating themselves, providing resources and support for improvement activities, and visibly using and supporting the process and tools in its own work. Quality is as important as budget or schedule on the scale of organizational priorities.

2. Bottom-up employee involvement

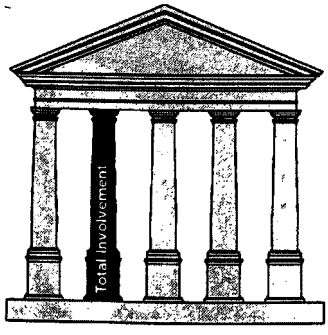
   Goal: Employees at all levels are encouraged to take part in formal and informal, individual, and team-based quality improvement activities. Suggestions for improvement from lower levels are given serious consideration.

3. Side-to-side integration

   Goal: There is coordination among work units and across functions. Teams composed of people from different areas tackle common problems collaboratively. External suppliers are part of quality improvement efforts.

Making TQM Relevant

The OPPE (Office of Policy, Planning, and Evaluation) has initiated four TQM pilot projects on work planning, the performance appraisal process, office space, and financial management and tracking. A fifth project will be added soon on the value added by the regulatory review process. Senior managers meet on a regular basis to establish and track the progress of these initiatives. Status reports and TQM implementation planning are conducted on a periodic basis and presented in thirty-minute sessions added to the Assistant Administrator's weekly staff meetings. These sessions ensure the active participation and involvement of senior management and employ the tools and concepts of TQM.



Measurement

Monitoring Quality

OAR cannot meet quality goals unless it establishes baselines and charts progress against them. Deciding what to measure should be heavily influenced by client requirements.

Dimensions

1. Self-measurement

   Goal: We verify the quality of our own work rather than depend on others to inspect for quality. We seek and receive regular feedback from our managers. Teams keep records on their efforts to improve quality.

2. Measures of work

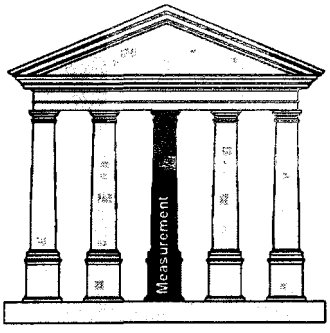
   Goal: OAR has a consistent set of quality measurement standards that are reevaluated periodically. Work groups monitor how well they're following work procedures and track indicators that can give them early warning of problems. OAR collects information on the extent to which timely corrections are made.

3. Measures of user feedback

   Goal: Work groups measure how well they meet the needs of those who depend on them. They seek and receive regular feedback from their clients. Problems are reported quickly to allow for speedy correction.

Making TQM Relevant

The OAQPS (Office of Air Quality Planning and Standards) is in the process of developing a TQM project to evaluate current environmental progress indicators. The current environmental trends report is viewed as a useful document, but it only addresses the six pollutants that have national ambient air quality standards. This assessment will seek to improve the quality of the indicators currently being used and to provide a vehicle for improving OAR-wide communications relative to environmental quality improvements. New indicators will also assist us in measuring progress relative to the implementation of the Clean Air Act, assist in identifying gaps in our knowledge base, and help us to see the long-term picture. OAQPS intends to invite participation from all OAR offices for this project.



Systematic Support

Leading and Reinforcing

All systems in OAR, such as planning, budgeting, scheduling, and performance management, need to support the quality effort.

Dimensions

1. Training and resources

   Goal: OAR provides the resources and education needed to improve quality. Employees are given the time to be trained, and the tools and support necessary to apply our new skills to our jobs.

2. Recognition and rewards

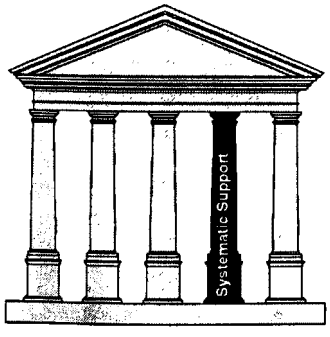
   Goal: OAR demonstrates its commitment to quality by recognizing and rewarding those who work to improve the quality of products, services, and work processes. Employees who strive for quality have a better chance for advancement.

3. Policies and procedures

   Goal: The rules and procedures by which OAR operates help to produce quality. Obsolete policies, redundant approval steps, and other structural barriers are removed in the interest of client focus.

Making TQM Relevant

The OAR (Office of Air and Radiation) ran orientation programs for approximately four hundred new hires in fiscal 1990 and again in 1991. These programs were designed to provide the tools and contact information new hires need to help ensure their success as Agency employees. Part of the activities included meeting with top-level managers and staff who helped provide the "big picture"—right up front. The orientation also included a series of workshops on technical and human resource issues. These initiatives mark the beginning of proactive, systematic efforts to address the issue of staff development and support.



Continuous Improvement

Preventing and Innovating

OAR needs to do things better tomorrow than it did yesterday and be constantly on the lookout for ways to correct flaws, prevent problems, and make improvements. Through continuous improvements, organizations foster creativity and breakthroughs that increase their credibility with their customers.

Dimensions

1. Prevention and problem solving

   Goal: OAR stresses prevention rather than temporary fixes and seeks to learn from mistakes.

2. Participative management

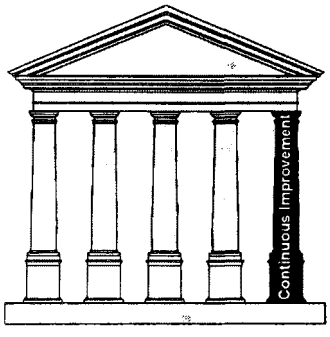
   Goal: We are encouraged to discuss work problems in an open way and to participate actively in decisions on how to do things better.

3. Initiative and risk taking

   Goal: Even when things are working well, we are encouraged to make improvements. All progress requires taking calculated risks and creative initiatives. Management fosters a climate in which initiative and prudent risk taking are accepted and necessary parts of the way work is done at OAR.

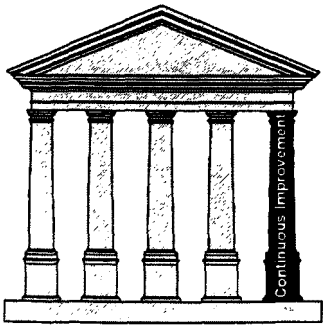
Making TQM Relevant

OAR, in cooperation with the regions, has established a new management accountability process to assist the regions in implementing the Clean Air Act and other air and radiation program priorities. The process is called the Memorandum of Agreement (MOA). The first step calls for senior managers to establish national and program-specific priorities which are combined in OAR's program-specific guidance. Regions then translate OAR's guidance into state grant agreements including commitments and schedules to accomplish Agency priorities. (There is flexibility in choosing which priorities to support.) The region's MOAs are submitted to OAR program offices for review.



The offices negotiate any differences and the AA for OAR and the RA for each region sign the MOA. The OAR program offices are responsible for tracking regions' progress in meeting their commitments. The advantages of this process over the previous process include

- Explicit national program goals and expectations
- Top-down leadership in setting Agency priorities
- A plan of action to meet priority commitments
- A streamlined review/approval process
- Assigned responsibility for tracking progress



Quality Tools

Training will be made available to you on a local level as specific processes are identified as improvement opportunities. The training will include a variety of tools and techniques to use at varying phases of a problem-solving process. We've included seven commonly used tools here. We hope you'll try these out with your colleagues. Any new procedure will be awkward and time consuming at first. Please, try them more than once to get a sense of the way they can help you get work done.

The tools we've included are

- *Brainstorming:* A technique for generating a list of ideas about an issue.
- *Multivoting:* A technique for narrowing down a list of ideas or options.
- *Force-field analysis:* A method for listing, discussing, and dealing with the forces that make possible or obstruct a change you want to make.
- *Action plan:* An outline of who will do what, when, and by what methods. It ensures that nothing is left to chance as you set out to implement a new way of doing things.
- Why *technique:* A simple yet effective way to move through layers of causes to get at the preventable root cause of a recurring problem.
- *Fishbone diagram:* A diagram showing a large number of possible causes for a problem.
- *Pareto analysis:* A bar chart (Pareto diagram) that visually represents the distribution of occurrences being studied.

Tool — Brainstorming

What It Is

A technique for generating a list of ideas about an issue.

What to Use It For

- Generating lists of

  Problems
  Topics for data collection
  Potential solutions
  Items to monitor

- Anywhere you want multiple ideas and/or more group energy

How to Use It

Step 1. Decide on a topic (such as "problem ideas" or "ideas for solutions").

Step 2. Have each member in turn offer an idea about the topic. Other members should refrain from any comment, listen carefully, and build on each other's ideas.

Step 3. Have one person record all the ideas on a flipchart.

Step 4. Continue the process until the team feels it has exhausted its ideas on the topic.

Step 5. Discuss and clarify the ideas on the list.

Example

A problem-solving team used this tool to come up with a "wish list" for the new Agency lunchroom. Six people got together and generated the following list of ideas:

Running water and sink
Relaxing music
Tables and chairs
Microwave oven
Chandelier/candlelight
Full-time attendant
Food delivery service
Massage lounge chairs
Recycling containers
Soft drink machine
High-capacity coffee maker
Refrigerator
Toaster
Linen tablecloths
Fruit-juice fountain
Free bagels and cream cheese
Multi-beverage dispenser

Keep in Mind

- Set a time limit for the brainstorming session.
- Offer ideas only when it's your turn. Between turns, write down ideas so you don't forget them.
- Any idea is acceptable, even if it seems silly, strange, or similar to a previous idea. Some of the best ideas are simply variations on what somebody else just said.
- Say "pass" if you don't have an idea on your turn.
- Never criticize, question, or even praise others' ideas during the brainstorming session.

Tool — Multivoting

What It Is

A technique for narrowing down a list of ideas or options. It is used in conjunction with brainstorming.

What to Use It For

Selecting a problem, topic for data collection, solution, or item to monitor

How to Use It

Step 1. Use brainstorming to generate a list of topics. Have one person record the ideas on a flipchart. Review and clarify each idea. With the consent of the group, similar ideas can be combined.

Step 2. Have each member assign ten points to one or more of the ideas (e.g., team members can assign all ten points to one idea, five to one and five to another, one to each idea, or any other combination).

Step 3. Ask team members to record their points for each idea on a separate Post-it note and to place the Post-it note next to the idea on the flipchart, or have team members call out their votes in turn.

Step 4. Tally the votes for each idea. Narrow down the list to the four to six ideas that received the most votes.

Example

The team that brainstormed a wish list for the new Agency lunchroom wanted to narrow down their list of ideas from seventeen to five. Each team member was assigned ten points with which to vote for the topics. Here is the resulting list.

Running water and sink (4)
Relaxing music (1)
Tables and chairs (10)
Microwave oven (6)
Chandelier/candlelight
Full-time attendant
Food delivery service
Massage lounge chairs
Recycling containers (10)
Soft drink machine (6)
High-capacity coffee maker (8)
Refrigerator (12)
Toaster (3)
Linen tablecloths
Fruit-juice fountain
Free bagels and cream cheese
Multi-beverage dispenser

Keep in Mind

- Feel free to distribute your votes in any way you like.
- To preserve anonymity, multivoting can also be done by written ballot (sometimes called *nominal group technique*).

Tool — Force-Field Analysis

What It Is

A method for listing, discussing, and dealing with the forces that make possible or obstruct a change you want to make. The forces that help you achieve the change are called *driving forces,* and the forces that work against the change are called *restraining forces.*

What to Use It For

- Determining if a solution can get needed support
- Identifying obstacles to execution
- Suggesting actions for reducing the strength of the obstacles

How to Use It

Step 1. Draw a force-field chart (a large *T*).

Step 2. Write the current situation at the top center of the chart.

Step 3. Write the desired situation at the top right of the chart.

Step 4. Brainstorm for driving forces (pushing toward what you want) and enter them on the left side of the chart.

Step 5. Brainstorm for restraining forces (preventing you from getting what you want) and enter them on the right side of the chart.

Step 6. Discuss the chart and determine which factors could be altered to increase the chances of success.

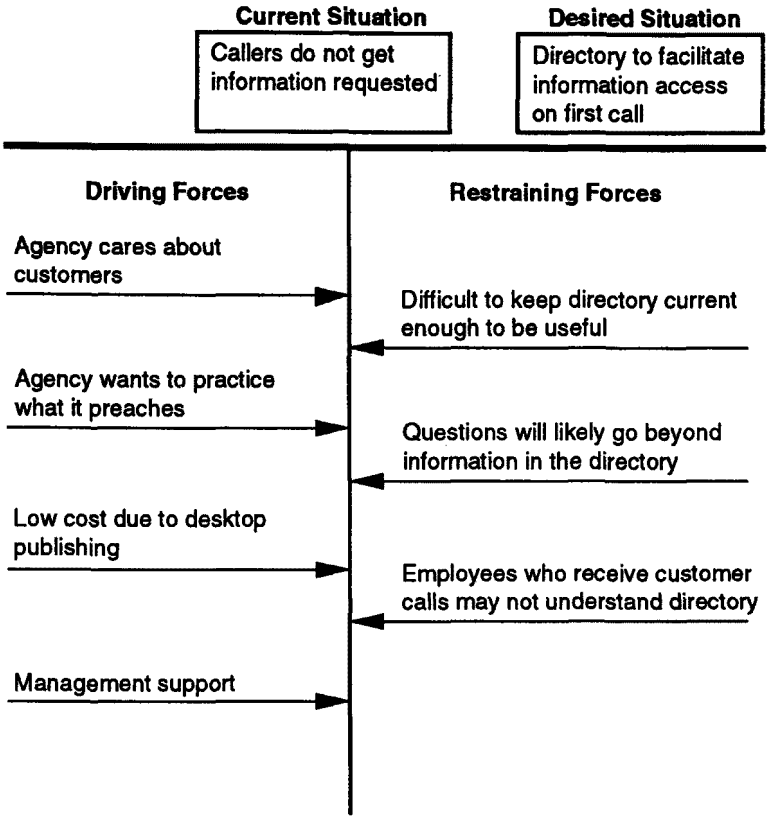
Step 7. Decide whether your solution is doable. If it is, make a list of action items to alter the forces. If it isn't, develop another solution.

Example

At Morton's Service Agency, a team was formed to try to resolve the problem of customers not receiving information they requested at the time of calling. The team decided that, while they could not ensure that a customer could reach a specific person, there could be a way to help ensure that the caller would get the needed information.

One solution they were considering was to develop a division directory identifying key people in various areas of expertise, as well as back-up people in each of those areas. Before presenting their solution to management, the team used force-field analysis to identify obstacles to implementing their solution to increase the likely success of their implementation plan.

Morton Service Agency's Force-Field Analysis of Caller Satisfaction



The team decided that an important restraining force was the basic difficulty of keeping any directory current. They decided to put the directory in a format that could easily accommodate changes. They also decided to come to their weekly meetings prepared to do a quick update of any changes.

In order to address the restraining force of questions likely to go beyond information in the directory, the group decided to keep a log next to the phone to be filled in any time the directory was insufficient to help direct the caller to a person who could be of help. They planned to make necessary additions to the directory based on the log.

Keep in Mind

- You should always finish a force-field analysis by making a list of action items.
- If restraining forces are too overwhelming, consider a different solution.

Tool — Action Plan

What It Is

An outline of who will do what, when, and by what methods. It ensures that nothing is left to chance as you set out to implement a new way of doing things.

What to Use It For

- Planning the implementation of a solution
- Coordinating data collection

How to Use It

Create a chart that shows your plans in an organized way. Include answers to the six questions below.

1. What needs to be done (i.e., specific tasks, arrangements, etc.)?
2. When does each task need to be done (do some tasks need to be completed before others; when should each task be finished)?
3. Who will do each task?
4. How will it be done (i.e., specific methods)?
5. What resources are needed (i.e., materials, equipment, expert advice, etc.)?
6. Are there special circumstances or needs that should be taken into account?

Example

A committee interested in a more efficient and productive system for responding to congressionals decided that one action they needed to take was to educate the people in the Congressional Control Office about the best procedures for responses. They developed the action plan on the next page.

Action Plan for Educating the Congressional Control Office

Action to Be Taken	Date Completed	People Responsible	Method	Resources Needed	Special Needs
Gather data to determine necessary components of training	10/30	Sam Myra	• Develop survey • Pilot survey • Conduct survey	Desktop publishing	• Data analysis assistance • Advice on survey questions
Develop training program	11/30	Sally Roy	Follow model used in telephone training program		
Print training booklets	12/15	Rita Joe	Publishing Department	Check with Publishing	• Editing assistance • Lowest possible cost
Provide list of people to be trained	11/30	Ralph	Check with Mark at Control Office		
Arrange for training logistics	12/5	Jim	• Find location • Organize supplies • Coordinate times	Help from Sally and Roy in identifying needs	Lowest possible cost
Conduct training	12/24	Sally Roy	Experiential, using cases	• Flipcharts • Markers • Training booklets • Note paper • Pencils	Correct number of chairs around tables put into square

Keep in Mind

- Put the action plan in writing.
- Don't worry about filling in the columns one at a time. The parts of the action plan can be filled out in any order.
- You can use a flowchart to show the sequence of activities.

Tool — *Why* Technique

What It Is

A simple yet effective way to move through layers of causes to get at the preventable root cause of a recurring problem.

What to Use It For

The *why* technique can help you find the root cause of a problem. You begin by asking *why* a problem occurs, and then repeatedly asking why *that* problem happened, until you have settled on a final, most important cause.

How to Use It

Step 1. Select a recurring problem.

Step 2. Ask "Why did the problem occur?" to uncover the first-layer causes.

Step 3. Take the causes that you uncovered in step 2 and ask "Why did *they* happen?" to uncover the second-layer causes.

Step 4. Continue asking why the previous causes happened until you believe you have uncovered the most important, root cause.

Example

The *why* technique can be used to uncover a number of causes at each level. In the example that follow, a single cause is given at each level to illustrate the chain of events revealed by the *why* technique.

Late Delivery of Projects

Problem
Recently, a number of projects have been delivered late.

Why did the problem occur? (first-layer cause)
Despite our best efforts, we were not able to complete those projects on time. We're spread too thin. It seems as though we've got way too many projects for the number of people in the department.

Why did that occur? (second-layer cause)
Productivity is down, and employees are calling in sick every day.

Why did that occur? (third-layer cause)
Our employees have been doing way too much overtime in the last six months—they're getting burned out.

Why did that occur? (fourth-layer cause)
One big reason is that the computer network is always going down. This causes repeated work stoppages and even lost files, which must then be re-created from scratch. Also, file transfers are very slow over the network, which causes work delays. Basically, it's taking our employees longer and longer to do less and less work.

Why did that occur? (fifth-layer cause)
We've outgrown our computer network. MIS tells us that we are now running 132 terminals over a network designed to handle 100 workstations, maximum.

Tool — Fishbone Diagram

What It Is

A diagram showing a large number of possible causes for a problem. Detailed causes are attached to a small number of main causes so that the completed diagram looks something like the skeleton of a fish.

What to Use It For

- Getting the big picture of a problem
- Facilitating team members' use of their personal knowledge to identify causes of the problem
- Providing ideas for data collection and/or solutions

How to Use It

Step 1. Write the problem on the right side of a flipchart. Draw a large arrow that points toward the problem.

Step 2. Draw arrows indicating the main types of causes (or contributing factors) and pointing toward the central arrow.

Step 3. Brainstorm for specific causes. Attach each specific cause to an appropriate main cause.

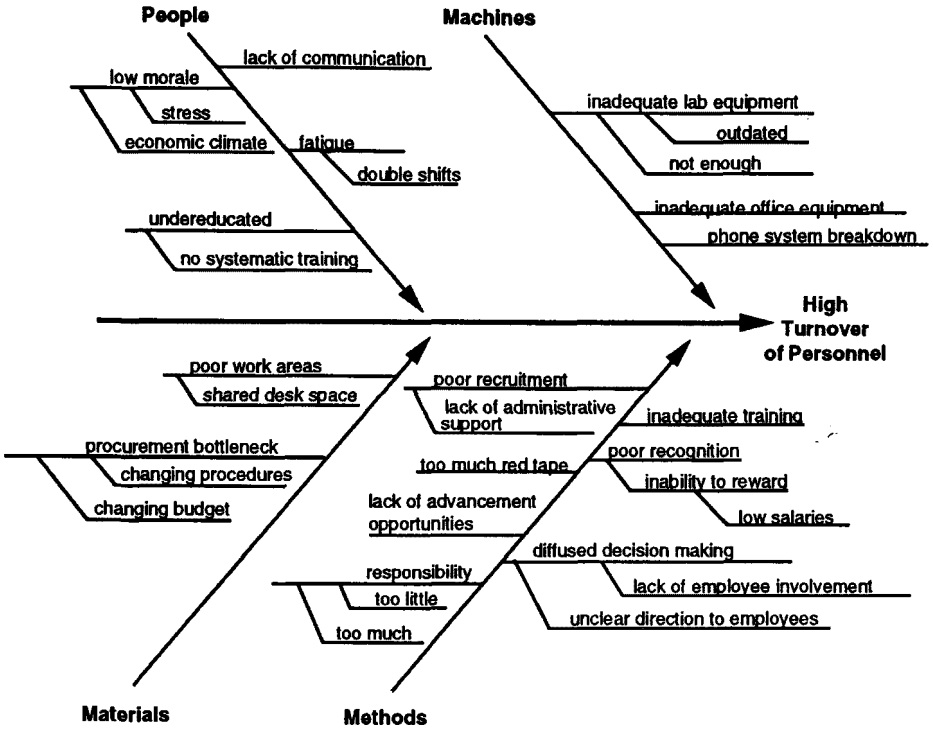
Step 4. Break down the causes further by brainstorming for subcauses.

The most commonly used categories of causes are people, machines, methods, and materials. These categories usually apply to a wide range of problems, and using them guarantees that most of the relevant causes will be put into the diagram. Some other possibilities include policies, procedures, and environment.

Example

At the top of the next page you will see an example of how fishbone analysis was used at the Jefferson Health Services Agency to identify the causes for the high turnover rate of personnel. Using the categories of people, machines, materials, and methods, a team of supervisors identified possible causes.

High Personnel Turnover Fishbone



The group decided to display their thinking in a very visible, accessible area and invited others in the agency to add to or change the categories and items. They determined that the primary causes over which they had control were in the area of methods. They were then able to gather further data to clearly identify the primary causes of the problem and to work on solutions.

Keep in Mind

- The most commonly used categories of causes are people, machines, methods, and materials.
- The fishbone diagram only shows possible causes. If in doubt, check your ideas with data.
- In most cases, it is not of great importance where on the diagram you put a particular cause.
- Fishbone diagrams are very useful when displayed publicly. You can invite people to add causes, and you can show what progress is being made in eliminating the causes.
- You may want to make a second or third fishbone diagram based on the first fishbone diagram.

Tool — Pareto Analysis

What It Is

A bar chart (Pareto diagram) that visually represents the distribution of occurrences being studied. The most frequent occurrence is represented at the far left, with other occurrences represented in descending order to the right.

What to Use It For

Identifying the one or two situation categories in which most of your problems occur

How to Use It

Step 1. Define the categories to be used in your diagram.

Step 2. Sort the data into categories. Arrange the categories in descending order as defined by the data.

Step 3. Make a bar graph based on the data, with the highest category on the left.

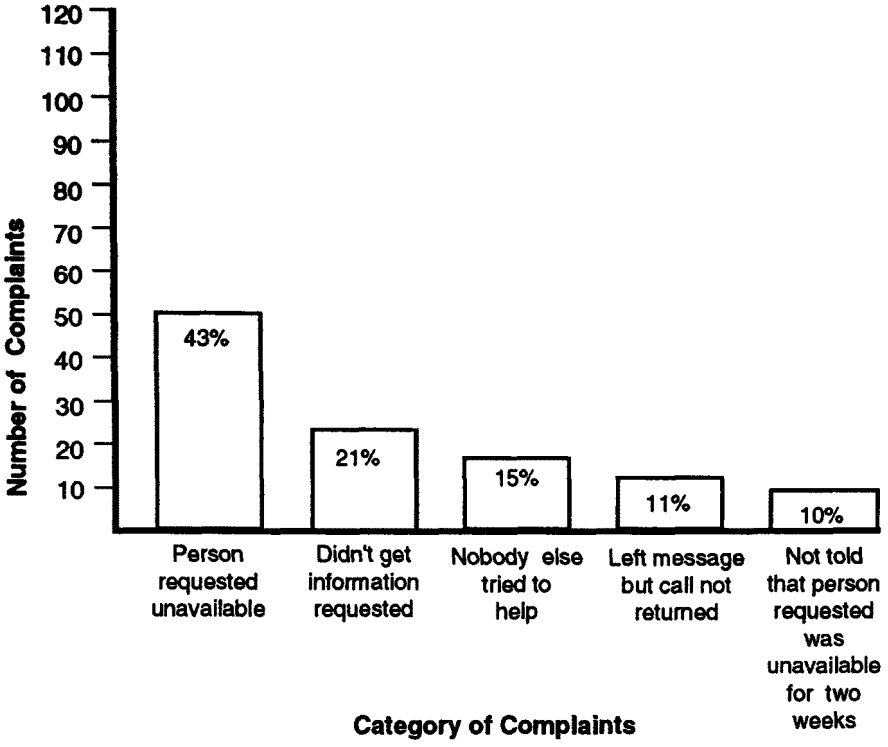
Step 4. Check your diagram for a Pareto pattern (in which the highest categories are responsible for most of the effects).

Step 5. Use the Pareto diagram as a guide to action or to further analysis.

Example

A division of Morton's Service Agency was interested in determining the most frequent concerns expressed by customers when they called the agency for information. The division formed a representative QAT in which they determined what they needed to know and developed a survey to gather the information. They then polled a random sampling of customers over a one-week period and charted the results on a Pareto diagram.

Most Frequent Customer Telephone Complaints



The QAT found the results very helpful. The top category (43 percent) was that the person requested by the caller was unavailable. Realizing that the agency could not always control availability, they combined that category with the second highest, that the caller did not get the information requested (21 percent). They decided that the callers who could not speak directly with the person requested could at least be helped with necessary information by someone else. Therefore, the QAT decided to determine solutions for helping customers get the information requested on the first call.

Keep in Mind

- Find appropriate categories by asking the questions what, where, when, who, why, and how.
- Most problems require more than one Pareto diagram, each exploring a different question.
- Draw the diagrams you want before you begin to collect data. Include the subcategories and a unit of measure.

- The information in the Pareto diagram can tell you where to focus in solving the problem. If the diagram does not give you enough information to proceed to solutions, it may still suggest what to investigate next. Typical next steps are a fishbone diagram, a flowchart, or more Pareto diagrams (based on new data).

Conclusion

Your Role

The American public will continue to challenge EPA to live up to its role as their first line of defense in preventing and solving environmental problems. Your role in meeting those challenges includes taking personal responsibility for continuously improving the way you work—day to day. If you are a manager, your role also includes granting amnesty to the people with whom you work. All employees must be free to speak the truth and to take risks in the interest of the greater good of the Agency and the public that we serve.

No one will hold your hand. Empowerment comes from within. It is easy and perhaps even reasonable to assume that one person can't make a difference . . . except, we all know someone who did!