

THE ROAD TO THE
BALDRIGE AWARD:
HUMAN RESOURCE
ASPECTS OF
STRATEGIC
TRANSFORMATION

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Frank J. Wayno, Jr.

THE ROAD TO THE BALDRIGE AWARD:
HUMAN RESOURCE ASPECTS OF THE STRATEGIC TRANSFORMATION OF XEROX

Frank J. Wayno, Jr.
Programs for Employment and Workplace Systems
New York State School of Industrial and Labor Relations
Cornell University

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New York State School of Industrial and Labor Relations
Cornell University

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TIMELINE - SELECTED KEY EVENTS

- c. 1976
 - o Human Resources personnel in Manufacturing began studying quality circles and other employee participation programs.
 - o Fuji Xerox responds to competitive difficulties by creating the New Xerox Movement, a program for competitive renewal built around quality.
- c. 1977
 - o Senior corporate executives begin visiting Japan to study Fuji Xerox's improvement activities and collect information about key competitors.
- c. 1978
 - o ACTWU officials and Xerox Human Resource and Manufacturing managers begin joint exploration of potential designs for employee participation activities.
 - o Plant managers in Manufacturing begin informal "rap sessions" to explore organizational improvement activities.
 - o A corporate task force to study employee participation is created.
- c. 1979
 - o A senior corporate staff position for organizational effectiveness is created to drive and coordinate employee participation activities.
 - o Service Work Teams begin to be established in U.S. Marketing Group.
- c. 1980
 - o Xerox and ACTWU reach agreement in their collective bargaining negotiations to experiment with a QWL effort. A joint, parallel oversight structure is created to manage these activities. Xerox agrees that no employees will lose their jobs as a result of QWL-generated productivity improvements.
 - o A six-step Problem-Solving Process is developed.
 - o External consultants are chosen.
 - o Trainer/Coordinators are chosen from both union and management ranks to deliver problem-solving and group process training and to provide day-to-day help to employee problem-solving groups. Trainer/Coordinators are co-managed by the ACTWU General Shop Chairman and a mid-level Xerox Manager.

- o Employee QWL training begins, on a voluntary basis.
 - o The manufacturing and engineering units are combined into Manufacturing and Development. Frank Pipp, a role-model manager/change agent is placed in charge of the new unit.
 - o Manufacturing sends Benchmarking team to Japan.
 - o Management Effectiveness Workshop is developed by D&M and delivered to all managers in the unit, including senior executives.
 - o Corporate staff creates a blueprint for becoming a total quality company, modeled on the Fuji Xerox experience.
- c. 1981
- o Over 90 problem-solving groups are established in the four main manufacturing plants in Webster, New York. Initially, hygiene factors are emphasized in shopfloor problem-solving.
 - o A special Cost Study Team begins analysis of Wire Harness production activities in an effort to prevent outsourcing of 180 jobs.
 - o Organizational Effectiveness Conference is created to facilitate information sharing and coordination of change activities. Trainer/Coordinators start Organizational Effectiveness Network.
 - o "The Summit" and "The Corporate Forum" are developed to facilitate communication between Xerox senior executives and ACTWU leadership.
 - o Development and Manufacturing commissions a task force to redesign the performance appraisal system.
 - o Management Style Survey is developed to provide behavioral feedback from subordinates to managers.
 - o An Organizational Effectiveness Unit is created in engineering to drive the implementation of QWL in the unit.
 - o A voluntary staff reduction program is set up to significantly reduce the ratio of indirect to direct employees.
 - o Managerial values at odds with QWL activities and, at times result in open resistance to the program.

- c. 1982
 - o A series of slide shows ("The Choice Is Ours") is created to explain Xerox's competitive disadvantages to the unionized workforce. ACTWU leadership helps in the design of the presentations and in their delivery to small groups of employees.
 - o Involuntary staff reductions begin when the voluntary reduction program does not produce the needed results. Reductions affect both unionized and exempt personnel.
 - o Wire Harness Cost Study Team identifies over \$3 million in potential savings. Xerox decides not to outsource jobs.
 - o Problem-solving teams are set up, with difficulty, in the engineering (Development) side of the firm.
 - o Xerox Corporate Management Committee approves total quality as the guiding business principle of the firm.
- c. 1983
 - o 1983 contract with ACTWU is ratified. Contract contains a no-layoff provision and requires the use of Cost Study Teams in potential outsourcing situations. Contract also contains a one-year wage freeze, restrictive absenteeism control program and co-pay medical changes and allows for the hiring of a temporary workforce.
 - o A new performance appraisal system is implemented in Development and Manufacturing; Performance appraisal training of managers/supervisors begins.
 - o Participation in problem-solving groups begins to level off. QWL training made mandatory; polarizes the unionized workforce.
 - o Xerox Teamwork Day is created by Organizational Effectiveness unit in engineering to celebrate the successes of the problem-solving groups in the Development area; 40 teams participate.
 - o David Kearns meets with top 25 senior managers to discuss the firm's competitive position; to put forth the notion that a total quality program will be the method for improving the firm's performance; and to discuss the basic elements of such a program. Consensus on such a program is reached; it will be called Leadership Through Quality.

- o A Quality Implementation Team and a Quality Training Task Force are set up, with members drawn from all major business units.
 - o A nine-step Quality Improvement Process is developed by the quality strategy task forces, as well as the Leadership Through Quality implementation strategy. Top 25 senior managers given opportunity to make changes to the strategy. A strategy document - "The Green Book" - is issued.
 - o Leadership Through Quality training program is developed.
 - o A Quality function is created, with Vice Presidents for Quality and Quality training and implementation specialists assigned to each major business unit.
- c. 1984
- o Employee attitude survey leads to redesign of employee participation activities and structures.
 - o Quality Specialists and Organizational Effectiveness Specialists (previously called QWL Trainer/Coordinators) taught Leadership Through Quality training program.
 - o Training of employees in quality processes begins, starting at the top of the organization following a training cascade philosophy and the LUTI technique. Training is to be mandatory for all.
 - o Quality Network is created in Development & Manufacturing for Quality Specialists. Quality Specialists learn facilitation and organizational change skills.
 - o Quality implementation oversight committee (composed of union officials, senior managers, Quality Trainers and Organizational Effectiveness Specialist) set up in Development and Manufacturing to address ACTWU concern over mandatory training.
 - o Manufacturing participates in Xerox Teamwork Day for the first time.
- c. 1985
- o U.S. Marketing Group modifies its performance appraisal system to require all employees to have objectives related to quality and to the improvement of their work processes. Additionally, "satisfying customer needs" becomes the major criterion for success, not "meeting objectives."

- o Facilitation skills manual - "Mining Group Gold" - and associated training program created to address managerial weaknesses in facilitation and group development skills.
 - o U.S. Marketing Group participates in Xerox Teamwork Day for the first time.
 - o PROSHARE gainsharing program created for Service Work Teams.
- c. 1986
- o Role model manager characteristics begin to be developed. Management Replacement Program modified to incorporate evolving role model characteristics.
 - o Merit review and reward process altered for executives to allow the length of time between consecutive increases to be varied.
 - o U.S. Marketing Group recognizes that its functional structure (sales, service, administration) negatively impacts customer satisfaction.
 - o Leadership Through Quality training completed for all managers and most other employees in Development and Manufacturing.
 - o Personnel contracting strategy used to increase "buy-in" of key managers to the quality program.
- c. 1987
- o Partnership concept developed in U.S. Marketing Group to focus District Managers on the customer and encourage cooperation between sales, service and administration.
 - o U.S. Marketing Group creates a bonus program that ties the compensation of key managers to customer satisfaction targets of their unit.
 - o Merit review and reward process altered for remainder of salaried exempt population to allow for variance in reward timing.
 - o Team Excellence - a team-centered reward and recognition program - is implemented.

- c. 1988 o Leadership Through Quality training completed for all employees in the U.S. Marketing Group.
- o Baldrige application process begins.
- c. 1989 o Gainsharing program tied to "Common Goals" and customer satisfaction put in place for all non-managerial employees in U.S. Marketing Group's District operations.

I. INTRODUCTION

In 1989, the Xerox Corporation's Business Products and Systems division was named a recipient of the Malcolm Baldrige National Quality Award. This award was created by the Malcolm Baldrige National Quality Improvement Act of 1987 (Public Law 100-107) to promote quality awareness, recognize quality achievements and publicize successful quality strategies - in short, to launch a national campaign to revitalize American industry by encouraging quality improvement.

For Xerox, the Baldrige Award was the culmination of a decade-long process of organizational renewal. Between 1959, when the firm (then called Haloid Xerox, Inc.) introduced the world's first plain paper copier, and the mid 1970's Xerox was the overwhelmingly dominant company in its industry. So strong was its position, that it controlled, in most estimates, well over 85 percent of the worldwide market for copiers.

In the 1970's, however, Xerox's position began to erode. Japanese corporations aggressively entered the low end of the copier market with high quality, low price machines. American competitors, IBM and Kodak, attacked the high end of the market. Both foreign and domestic competitors were assisted in their efforts to challenge Xerox by a Federal Trade Commission campaign to break Xerox's control over copier technology. This campaign resulted in a series of agreements in which Xerox agreed to make key patents available to competitors and to stop providing

favorable pricing schedules to customers leasing several Xerox machines.

Xerox's competitive position was further damaged by the internal excesses acquired during its period of meteoric growth in the 1960's. With a virtual monopoly on copier technology and a marketplace increasingly captivated by the utility of copiers, Xerox growth during the 1960's was the stuff of business legends. In 1959, when the 914 copier was introduced, Haloid Xerox's annual revenues were approximately \$30 million. By 1969, Xerox Corporation's annual sales exceeded \$1 billion. Such growth in sales was paralleled by growth in workforce and facilities. During this period, the appropriateness of such things as internal structures, direct-to indirect staff ratios, product development procedures and costs, manufacturing procedures and costs or internal controls was not a central concern. The size of the revenue stream occasioned by the firm's market dominance masked internal inefficiencies. Indeed, these were accepted as a necessary concomitant to rapid growth -- something that would be dealt with at a later time. Additionally, the firm's success created an inward focused culture, increasingly characterized by bureaucratic structure and procedure and political managerial behavior.

As a result of these factors, Xerox worldwide market share dropped sharply to well below 50 percent by the end of the 1970's. While the firm's revenue stream remained strong, due largely to the gradual conversion of leased machines to sale,

growth began to slow. Company documents reported average annual growth rates of approximately 23 percent for revenues and 20 percent for profits during the mid-1960's to mid-1970's. Over the latter half of the 1970's, however, these average annual growth rates had declined to approximately 16 percent and 14 percent, respectively. By 1980, these trends began to be reflected in the firm's return on assets (ROA), which declined steadily from 19 percent in 1980 to 8.4 percent in 1983.*

Recognizing that these trends, if unchecked, would seriously threaten Xerox's viability, the firm began an intensive examination of its internal practices. It was assisted in this effort by a high level consulting team from McKinsey and Company. That analysis began a ten-year process of change that significantly altered the way Xerox managed its business. Strategic Business Units focused on different market sectors were created to shorten product development time and to tailor market strategies to sector differences. A downsizing program significantly reduced both the size of the firm's workforce and the ratio of indirect to direct workers, while a cost reduction program took hundreds of millions of dollars out of other components of the firm's cost base. Customer needs and satisfaction became a driving force within the organization, leading to changes in internal practices and the reallocation of resources. Participative structures were created to encourage employee

*LTQ: A Total Quality Process for Xerox Corporation - 1986 Internal Publication

involvement and labor-management cooperation in performance-related problem-solving. In sum, a fundamental cultural transformation of the organization was wrought, a transformation built around quality improvement that touched every aspect of Xerox and continues apace today.

This report summarizes the findings of a study that examined the process of renewal at Xerox. The primary objective of this effort was a desire to understand the human resource aspects of a transformation to a total quality focus. The study is, however, exploratory in nature. It does not purport to test specific hypothesis about organization change, but seeks merely to "unbundle" the change process at Xerox. Conceptually, this "unbundling" effort has been heavily influenced by Noel Tichy's work on strategic organizational change.* In it he describes organizations as being composed of three fundamental systems: the technical, the political, and the cultural. Pressure for change may exist in one or more of these systems. However, the other system(s) may be "out of phase" with the system in tension and may not be supportive of change without effective managerial intervention. Managing strategic change, or understanding it as an observer, is therefore a matter of sorting out issues of technical design, political allocation and cultural values. This study attempts to examine the renewal effort at Xerox in these terms.

Data collection has largely been accomplished through the

*Tichy, N. Managing Strategic Change New York, John Wiley & sons, 1983.

vehicle of ethnographic interviews with key change agents. A modest list of potential interviewees was generated in discussions with Dominick Argona, a manager intimately involved in planning and leading the renewal effort in Manufacturing, and Deborah K. Smith, current Vice President for Human Resources & Support Services at the firm's Webster, New York location. Discussion with the initial interviewees generated a rolling list of subsequent interview candidates. In line with the exploratory nature of the research, interviewees were then contacted, if they could explicate a new dimension of the renewal effort, or could corroborate the picture painted by others. Thirty in-depth, on-site interviews were undertaken, ranging in length from one and one-half to three hours. These were augmented with numerous short discussions with Xerox employees, many of them serendipitous as the interviewers spent time at various Xerox locations. Interviewees were located at the firm's Webster, New York manufacturing and development facilities, its Xerox Square offices in downtown Rochester and the Syracuse District office of the U.S. Marketing Group. Interviewees were promised confidentiality to encourage candor. As such, names are cited only with the permission of the respondent.

II. THE PROCESS OF CHANGE: SOME CRITICAL EVENTS

The beginning of the performance turnaround of Xerox is frequently tied to the announcement, in late 1983, of a formal quality improvement program called "Leadership Through Quality" (LTQ). There can be little doubt that this program was, indeed, a watershed event in the firm's renewal process. Leadership Through Quality was an outgrowth of Xerox's strategic decision to adopt quality as a "fundamental business principle" - to tie its hopes for future success in the marketplace to the quality of its products and services. The essence of the firm's commitment to quality was captured in the Xerox Quality Policy:

Xerox is a quality company. Quality is the basic business principle for Xerox. Quality means providing our external and internal customers with innovative products and services that fully satisfy their requirements. Quality improvement is the job of every Xerox employee.

As a process, Leadership Through Quality had three foundational components. First, it defined a nine-step Quality Improvement Process (QIP) that was to be used by all employees and operating units to continuously align work output with customer (both internal and external) needs. Second, it mandated the use of a systematic and participative Problem Solving Process (PSP) to encourage rigor, comprehensiveness and effectiveness in problem resolution. And third, it mandated the use of competitive benchmarking for all work activities and defined success in meeting customer requirements as, minimally, parity with the best practices found in industry.

Leadership Through Quality was an outgrowth of Xerox's

recognition that the rapid turnaround of its business fortunes was not solely a matter of structural reorganization and cost base reduction. These activities were certainly necessary pre-conditions for long-term effectiveness in the market. However observations of the internal operations of the firm, particularly the pace and dynamics of change, by external consultants and, ultimately senior management, suggested that the malaise at Xerox went far deeper than its structural misalignment and overstaffing. The years of technological dominance, virtual "monopoly" market status and unrestrained and seemingly limitless profit growth had led to what some have described as an "attitude of complacency and self-satisfaction". Put simply, many employees in Xerox, particularly mid to upper-level managers and technical professionals, had come to believe that they were the best in the business.

In such an environment, change in basic business practices and processes is not easy to accomplish. Where strongly held beliefs and assumptions support one set of behaviors, it is difficult to bring about the display of new behaviors by merely asserting that they are necessary and modifying the structural context of day-to-day activity. In fact, old habits simply continue in the new structure. Thus, Xerox concluded that a fundamental change in its culture was necessary if the firm was to again dominate its industry. Leadership Through Quality was designed to be the vehicle through which the cultural transformation of the firm would be accomplished.

The launch of Leadership Through Quality was not, however, the beginning of the corporate renewal process. In fact, Leadership Through Quality built significantly on activities that had begun years earlier. Both employee participation in problem solving and benchmarking can be traced to the late 1970's and were brought into the firm in a piecemeal fashion by employees deep in the organization who sought improvement in their areas of responsibility. Therefore, Leadership Through Quality was merely one step, albeit a very significant one, in an evolutionary renewal process.

The Early Years: The Vision Takes Shape

The notion of using employee participation to improve organizational performance was first considered at Xerox in 1976. As noted above, in the mid-1970's, it was becoming increasingly evident that something was happening to Xerox's position in the marketplace. Competitive inroads by Japanese copier manufacturers were leading to fluctuations in demand for Xerox copiers. This performance decline was most strongly felt in Xerox's manufacturing operations, where fluctuation in the demand for copiers was leading the firm to continuously adjust the size of its manufacturing workforce.

At about the same time that Xerox was experiencing these symptoms of competitive decline, the American business community was becoming increasingly interested in the managerial methods of the Japanese. A technique that received considerable press at

this time was the quality circle and the potential of this method did not escape the attention of Xerox. Two employees in the Manufacturing Training and Employee Services department - Dominick Argona and Sam Malone, the department head - began to mull over the utility of quality circles for Xerox. They were intrigued by the notion that problem solving by small groups of employees could have an incremental impact on organizational performance. They also recognized that such efforts to involve lower-level employees more fully were contrary to the Xerox way of managing its business. Xerox, at this time, had a top-down culture that clearly emphasized managerial decision making and problem solving.

Argona and Malone took their initial explorations of quality circles to Malone's boss, John Foley, then Vice President of Personnel for Xerox's Webster, New York manufacturing operations. They argued that the firm's recent performance was beginning to suggest a need for change, for "doing things differently." They were not sure that quality circles were the way to bring about change, or whether the technique was even applicable to Xerox's internal environment, but they thought the idea had sufficient merit that they should pursue it more fully.

Foley agreed. He told Malone that while he himself knew little of quality circles, the idea was interesting and he thought Xerox should know more about it. Additionally, he authorized Malone to "steal" some money from existing projects to

fund the effort and to come to him for help if any roadblocks were encountered.

Argona took the lead in the effort to better understand quality circles and quality of work life, another related concept that was receiving attention in the business press. He went to seminars, attended conferences, talked to companies that were experimenting with the concepts and read as much as he could. As his knowledge base grew, he channeled the information to Foley and reinforced the conviction that they were on the right path in considering participative activities.

In 1978, Argona's thinking about participation was enriched by an enlargement of his job responsibilities. Concerned about potential discrimination in hiring practices, Xerox had put together a team of Ph.D. level sociologists and psychologists to create and validate the firm's hiring tests and procedures. It was felt that this group needed a manager who could relate well to "academics" and, as Argona had completed a Masters degree in educational psychology, he was asked to take responsibility for the team.

As he began to work with them, he became increasingly "fascinated with their education, their background, and their thought processes about the psychology and sociology of the business." The team "was a mirror to look at the organization from a different perspective" and Argona took full advantage of it.

These early staff explorations into the form participation might take in Xerox were enriched by the involvement of several influential line managers. As Xerox performance declined, Tom McCune, the manager of the Supplies Manufacturing Organization started a series of "rap sessions" for general managers to share information about organizational improvement and talk through change efforts. These informal sessions were attended by many of the key plant managers at the Webster site. Argona was asked to participate as an "expert" resource to the group. In doing so, however, he was able to begin influencing line attitudes toward participation and to test staff ideas for how participation should progress against line experience.

In these early explorations of quality circles, one fact jumped out at Argona and his colleagues: "...75 percent of the projects that were going on in the United States no longer existed after three years. In other words, they completely failed." Quality circles were an interesting idea, but they had no staying power. Argona's research suggested that the reason for this was that quality circle programs were typically voluntary overlays onto existing organizational infra-structures. In most implementations, no attention was given to changing aspects to the prevailing internal culture and structures that might be incompatible with quality circles. Without the creation of the necessary support systems, the circles were doomed to failure. To Argona and his colleagues it became evident "that quality circles (alone) were not going to get us where we needed to go."

They came to view them as simply convenient "process entry" activities - a type of participation that could be used to acquaint employees with the notion of involvement and to give them some of the necessary skills to be effective at it. However, once the labor force had some familiarity with participation, it would be necessary to introduce methods that took account of the larger systemic and cultural aspects of the work environment. One of these, socio-technical work redesign, Argona had learned about in Norway and saw as a natural next stage to quality circles.

Beyond concern with the design of shop-floor work improvement activities, Argona and his colleagues spent a great deal of time thinking about the larger industrial relations context for work participation. Xerox was (and is) a union company; its manufacturing workers were largely represented by the Amalgamated Clothing and Textile Workers Union (ACTWU). Relations between the company and the union had generally been cordial, with mutual respect shown by both parties. That, however, had been during times of great corporate success and prosperity. It was becoming clear that the depth and sophistication of the changes that would be necessary to turn the firm around would require sacrifice by everyone in the firm. Clearly to Argona and his colleagues, the union would have to be intimately involved in designing and implementing these changes or the chances of success were small. With some delicacy they began to bring ACTWU officials into their discussions in the hope that, together, they could devise an

acceptable structure for participation.

While this grass roots interest in participation was developing in the Webster manufacturing operations, the senior management of the corporation was coming to recognize the value of participative methods. In 1962, Rank Xerox (a partnership created in 1956 between Haloid and The Rank Organization of the United Kingdom) and Fuji Photo Film of Japan created an independent firm, Fuji Xerox, to develop and market copiers in the Far East. After spectacular early success that matched that of its parent, Fuji Xerox ran into competitive difficulties in the early 1970's as a result of the worldwide oil crisis. To survive, it became clear that the firm would have to significantly improve both its cost position and its product quality. In 1976, Fuji Xerox responded by creating the New Xerox Movement, a program designed to commit the company unequivocally to the pursuit of quality. Over a four year period, Fuji Xerox systematically created an organization built around quality. So successful was this effort that, in 1980, Fuji Xerox was awarded the Deming Prize for Quality, Japan's highest quality award.

The competitive improvement efforts of Fuji Xerox were watched closely by senior Xerox officers. Chairman Peter McColough and David Kearns (who would become President and CEO of Xerox in 1977 and its chairman in 1985) visited Japan many times during the late 1970's to examine firsthand Fuji Xerox's product development efforts and its quality improvement processes. Additionally, Tony Kobayashi, President of Fuji Xerox, provided

the Xerox corporate executives with introductions and access to other Japanese firms so that they could better understand the competitive forces arrayed against them.

Out of these visits grew a realization that employee participation could be of great benefit to Xerox, particularly given the "precipice of bad results that was descending upon" the firm. Indeed, after one of his visits to Japan Chairman McColough is reputed to have said to his corporate Vice President of Personnel, "...get me some of that. I've been to Japan. I've seen what they are doing. Get me some of that." He was referring to employee involvement.

Douglas Reid, the newly appointed VP of Personnel took the hint. A corporate task force under Joe Charleton was set up to study employee involvement. After examining the issue for about a year, the task force "recommended that a corporate position for organizational effectiveness be established to drive employee involvement" in the firm.

In 1979, such a position was created and Hal Tragash a senior personnel staff member from the marketing side of the organization was asked to fill it. Tragash accepted, although admitting that he knew little of employee involvement. He quickly put into action a straightforward implementation strategy that had worked for him in the past: "educate myself, educate others, find out what we could do and get some experiments underway, publicize them, support them and diffuse (the results)."

To educate himself about the concept, Tragash turned to professionals whose job was to train people about participation. These were largely external consultants, such as Richard Walton at Harvard and Sid Rubenstein, who had assisted General Motors in its efforts to implement a participative system at its Tarrytown, New York plant. He also drew upon the expertise within Xerox, especially Argona and his colleagues.

After about three months in the job, Tragash felt he knew enough to ask the right questions. He asked to make a presentation to the Xerox management committee. Senior ACTWU officials were also in attendance at this meeting. In the meeting, he described what he thought the essence of participation was and how it could help the firm. He said, "Employee involvement ... rests on a foundation of the Theory Y philosophy (of management) and (requires) the building of trust and credibility between all of the people involved at work. You (have) a choice (when) creating involvement from one-way communication (downward) to a German Works Council-type representative structure or an employee-owned company. How far do you want to go?" He was told to "take it at least as far as joint problem solving, (with) maybe some autonomy in work. (We) don't want an employee-owned company and we don't want a Works Council-type environment."

Anthony Costanza, the General Shop Chairman of the union was present at that meeting. Although he and his colleagues in the union leadership group had been having discussions with Argona and his group, Tragash's presentation took him aback.

According to Tragash, Costanza commented that "when I first heard him (Tragash), I thought the guy was talking Greek..."

Costanza apparently caught on quickly. In 1980, shortly after the meeting, the union and Xerox reached an agreement in their collective bargaining negotiations "to experiment with what was then termed a quality of work-life (QWL) effort. The focus was on creating shop-floor problem solving groups comparable to quality circles.

In the negotiations around the QWL issue, the union was adamant that it would agree to cooperate only if control of the program was equally shared by union and management. The company agreed, assuring the union "that oversight would indeed be joint, that management saw QWL as something more than a short-lived program, and that QWL would be kept separate from the management structure, the union structure, and the collective bargaining relationship.* The employee involvement program would be run by a parallel process that would be separate from the day-to-day industrial relations and management activities found in the firm. Additionally, reflecting another union concern, Xerox agreed "that no employees would lose their jobs due to productivity gains generated by QWL teams."*

*Tracing a Transformation in Industrial Relations, U.S. Dept. of Labor, Bureau of Labor-Management Relations and Cooperative Programs, BLMR 123, 1988, p. 5.

Employee Participation Is Formalized: QWL Activities Begin

Authorization to proceed with the implementation of the QWL program was now in hand. As the manufacturing area was to be the test bed for the new participative activities, Argona and his colleagues began the process of selecting a consultant to advise them on the start-up as their first order of business. Argona's research had suggested that when implementing participatory programs, it was important to use the services of an external consultant. He also found, however, that it was important to augment those services by developing an internal consulting capacity within the organization. By having both types of change agents available, they could be "leveraged off each other" to move the program forward. Internal consultants were knowledgeable about the cultural, political and interpersonal nuances of organizational life, as well as the technical jargon of the business, and thus could move and act in ways an external person could not. On the other hand, external consultants brought objectivity and a sense of perspective and could often say things that an internal consultant would find worrisome.

Following the agreement that the QWL program would be managed jointly, the union and company worked together to select an external consultant. Sid Rubenstein of Participative Systems was chosen and he and a colleague, Peter Lazes, worked with the union and the company to 1) design an appropriate oversight structure for the participative activities; 2) help develop the shop-floor problem solving teams; 3) provide necessary training

in group process skills and problem-solving; and 4) work with union and management to identify the infrastructural changes needed to support the QWL activities. Rubenstein eventually left the project, and the work was continued by Lazes.

The overall design has been described in detail elsewhere* For our purposes, it is sufficient to note that oversight was to be accomplished in each plant implementing the QWL program through a union-management plant advisory committee (PAC) and a network of department-level steering committees. Overall coordination between plants was to be accomplished through a county-wide (Monroe county) planning and policy committee. Each problem-solving team was to consist of six or seven employees and one supervisor from a specific work area. The teams were authorized to meet for two hours per week to identify, analyze and solve problems in their work area. Membership on a team was entirely voluntary.

A point of considerable discussion in the 1979 to 1980 time period was the size of the initial implementation. The literature on these types of programs suggested a limited roll-out - possibly one pilot problem-solving group in a test plant or one such group in each of the major plants at a site. The Xerox plant managers in Webster would have none of this when the actual implementation began. First of all, they said, they had been talking about this for some time, thought they knew what they

*Lazes, P. and A. Costanza, "Cutting Costs Without Layoffs Through Union-Management Collaboration," National Productivity Review, Autumn 1983, pp. 362-370.

were getting into, had a clear need for internal improvements and were, therefore, ready to go. Second, with the competitive culture then in existence at Xerox, no plant manager wanted to be left behind, if the QWL process truly helped performance as they thought it would. Thus, the decision was made to go with a full, four plant launch. As Argona described it, "This was like going at 60 miles per hour in a stagecoach, and suddenly there's a cliff. There was no stopping; over we went."

Xerox knew that success in setting up a QWL program required considerably more than merely defining a structure for participation. The employees who would be asked to join the problem-solving groups generally had little, if any, experience in this type of environment. They would have to be carefully trained to identify and analyze problems appropriately and to understand the nuances of group dynamics. To this end, Argona and his staff developed a six step process that would be used by the groups to 1) identify and select a problem; 2) analyze the problem; 3) generate potential solutions to the problem; 4) select an appropriate solution from among the possibilities and plan for its implementation; 5) implement the solution, and 6; evaluate the effectiveness of the implementation. This became known as PSP, the Problem-Solving Process.

To deliver the problem-solving and group process training and to provide day-to-day help to the problem-solving groups, a "Trainer/Coordinator" role was created. Following the agreement that QWL activities would be jointly administered, occupants of

this role were chosen from both union and management ranks. Fifty percent of the Trainer/Coordinators were chosen by plant management and fifty percent by the ACTWU General Shop Chairman and his advisors. Given the training flavor of the role, selection criteria tended to emphasize communication and interpersonal skills and "having a positive orientation toward employee involvement." The Trainer/Coordinators were considered to be part of the Personnel function and were co-managed, with one manager provided by Personnel and one by the union. It was expected that those selected to be Trainer/Coordinators would remain in the role for two years and then would cycle back to their old responsibilities.

As might be expected, given the loosely defined selection criteria, the first group of Trainer/Coordinators had widely divergent skills and backgrounds. While some were exceptionally talented and enthusiastic, others appeared to have been given the job because no one was quite sure what to do with them. This was equally true of those selected by the union and those selected by management. Some of the early union Trainer/Coordinators were shop chairmen who had failed to get re-elected. Some of the early manager Trainer/Coordinators were either marginal performers or those who suffered from being labelled a "people person". This range in ability ultimately meant that there was to be considerable variability in the effectiveness of members of the group.

To prepare the Trainer/Coordinators for their new job, Argona, who had been named one of the co-managers, took them to Cornell University for an intensive training program. The program was delivered by Peter Lazes and Ron Mitchell, a graduate student in the School of Industrial and Labor Relations at Cornell. Subjects covered included an overview of the philosophy and intent of a QWL program, the Problem Solving Process, group dynamics and facilitation and training skills.

The early roll-out of the problem-solving groups proceeded rapidly. By the latter part of 1981, there were over 90 groups in action, spread over the four main plants at the Webster facility. As was usually the case when QWL programs were set up, the first teams devoted a great deal of time to "hygiene" issues that directly impacted their work environment. While this was understood as a "natural" phenomenon by Argona, the Trainer/Coordinators and other QWL advocates, it reinforced the fears of the sizeable number of managers and supervisors in the organization who felt that the program was a waste of resources and would have little bottom-line impact. The feelings of the skeptics were perhaps best captured by one senior manager who said, "If we are truly interested in improvement, the money we're spending on these groups could be far better spent. Give me ten extra industrial engineers and we'll find more ways to save costs than you, letting the employees do it...."

The Trainer/Coordinators dealt with this the only way they could. Gradually, the groups were encouraged to focus on prob-

lems more directly related to the firm's production process. Such issues as the organization of tool storage, the design of floor layout, the elimination of toxic fumes, the design of new tooling to improve accuracy and the design of an orientation program for new employees were taken on by various groups. While cost savings were not typically calculated, those closest to the work of the teams, both supporters and skeptics alike, acknowledged that the problem-solving groups were cutting into the firm's cost base.

Managing the QWL Implementation: Networks and Information-sharing

At the corporate level, Tragash now turned his attention to creating awareness of employee involvement across the corporation. He began this task by calling together a group of twelve organizational development and personnel research colleagues from all parts of the corporation. As an incentive to attend, he invited a well-known outside consultant, David Nadler, to address the group. Tragash outlined for the group the direction the corporation was taking through the QWL experiments in manufacturing and asked the group to react. Additionally, he encouraged them to explore various models for organizational change that might be useful to Xerox in its renewal efforts and asked them, quite pointedly, what they thought the human resources function might do to facilitate change in Xerox.

The meeting was a great success. Participants were excited by the discussions and the opportunity to share information and

experiences. Tragash now had an effective tool for communicating to the human resources community what corporate thinking and plans were and for creating a greater sense of coherence around the numerous change experiments being conducted across the organization. The meeting came to be known as the Xerox Organizational Effectiveness Conference and grew steadily from 12 participants in the first year, to 25 in the second year, 130 in the third year, and finally over 400 in 1984 when it was divisionalized as part of the quality movement. While starting with human resource attendees, it came to include the Trainer/Coordinators for the problem-solving teams and employees charged with the firm's extensive benchmarking activities - in short everyone involved in what was then called the Business Effectiveness program. A subgroup of the participants - Argona and the Trainer/Coordinators for the problem-solving teams - expanded on this model and formed a network (the Organizational Effectiveness Network) that met much more frequently to discuss common problems, work through solutions and provide emotional support to colleagues involved in the often times frustrating task of facilitating behavioral change in the workplace.

Two other communication vehicles - "The Summit" and "The Corporate Forum" - were developed during the early 1980's to facilitate the renewal process in general and employee involvement in particular. Both of these resulted from a desire to keep alive the spirit of openness and cooperation that characterized the 1980 contract negotiations. The Summit was a very private,

annual meeting between the Chairman and President of Xerox and the senior Amalgamated leadership. In it, the hard facts of business life were discussed - in essence, Xerox opened its books to the union.

The Corporate Forum was also an annual meeting, but its focus was specifically the QWL program. Senior corporate executives and the top management of the Development and Manufacturing (D&M) area met with ACTWU officials for a "progress check" on how the company was doing with employee involvement and QWL. This was an opportunity to both look backward, evaluate and learn and look forward to plan for the future. Additionally, it provided an opportunity for formally recognizing successful problem-solving teams by having them make presentations on their work to the top union and management leaders. Such presentations also helped senior managers to better understand the QWL process and to experience its benefits, both financial and motivational, in a tangible way.

Changing the Culture: A Role-Model Takes Command in Development and Manufacturing

The implementation of the QWL effort in manufacturing and the dissemination of the employee involvement concept to other parts of the firm was facilitated by a change of command in the manufacturing and technical parts of the firm. In the latter part of the 1970's, the engineering or development side of the firm, was headed by an executive who was a brilliant technician with a Ph.D. from MIT. This executive was very detail-oriented

and ran the technical side of the business with an iron fist, characteristics that did not endear him to his subordinates or enhance the unit's performance. As one employee in the unit at that time put it, "Mistakes were not tolerated, which of course meant many were made. Collaboration was basically nil. People were only looking out for themselves. We had a product that came out in the market called the 3300, which was a real disaster. When it hit the market, David Kearns, the President and CEO, had corporate audit come in and find out what the heck was going on - why would you put such a (poor machine) out in the market? (Among the things they found out was that) people were afraid to send any bad news up the line, because messengers were shot and drawn and quartered by the hour. So information was hidden that was key to a successful program." Not surprisingly, the head of engineering did not have high regard for team-oriented activities or employee involvement.

In 1980, a change of management occurred when Frank Pipp was brought in to head up the newly formed Development and Manufacturing (D&M) organization. Pipp had originally come to Xerox from the Ford Motor Company. He had a long history in manufacturing, had run that function at Xerox, but had left the function to take an assignment on the corporate staff.

Pipp's job, employees were subsequently to find out, was to come in and "thaw out the culture". He informed selected employees that his successor had already been chosen and that he expected he would only be in the job about two or two and a half

years. During that time, however, he fully intended to change the way things had been done. In addition, Pipp was a very strong supporter of employee involvement and was determined to facilitate its growth in the firm.

Management Training - Back to Basics in Development and Manufacturing

On his first day on the job, Pipp called Tom Kayser, a management training and development professional from the engineering area to his office. He told Kayser about his desire to change the culture and asked him to design a training program that would re-introduce the fundamentals of management. He used the analogy of football coach Vince Lombardi whose opening words to his team at the start of training camp were always, "Gentlemen, we're going back to basics. This is a football!" Pipp said, "I don't care how much training these people have had, and I know they've had tons of training. I want to go back to basics."

Kayser left the meeting excited at the prospects for change within the organization. Indeed, unbeknownst to Pipp, Kayser was planning to take a job with Intel because of his disillusionment with the organization under the previous head of engineering, but he canceled those plans after his meeting with Pipp. With the help of Alton Bartlett, an external consultant, Kayser quickly designed a two-day training program called the Management Effectiveness Workshop, that covered such things as how to build a climate of mutual trust, motivation, communication and delega-

tion. Then over a six month period, with the help of the same consultant, he delivered it in small groups to every manager in the Development and Manufacturing operation. The course proved to be very well received. It had apparently struck the right chord.

Performance Appraisal and Internal Competitiveness

Beyond its immediate impact on the skills of the Development and Manufacturing management group, the course proved to be an excellent vehicle for Pipp to better understand the needs of his organization. When Pipp had announced the course, he had made it very clear that this was to be a program for every manager in the organization, including senior managers. He said he planned to take the course last to get feedback from the trainers on what they had learned from the rest of the managers. He also said he would meet with the management group to confirm what he had learned and discuss follow-up actions.

When Pipp and his direct reports took the course, they got an earful about problems in the organization. It had proved to be a wise move to have the course taught by a team composed of an insider and an outsider. Bartlett's open demeanor and easy style put the managers at ease and his stature as a professor allowed him to challenge senior managers and probe for insight. Additionally, his status as an outside professional gave managers confidence that he would actually convey their comments upward. Kayser, on the other hand, was known for his professionalism as a

trainer, thus lending an aura of legitimacy to the program, was trusted and as an insider could help Bartlett to understand the nuances of life at Xerox.

The basic message that Kayser and Bartlett conveyed was that the managers in the organization did not feel very motivated. To a degree, this was due to the frustrations they had experienced because of the autocratic style of management of Pipp's predecessor. However, an additional factor that was affecting morale was the firm's performance appraisal system. That system required employees to be rated on a five point scale, with the distribution of ratings in a given unit forced to fit a pre-defined curve. Such a system, the managers argued, often forced them to give lower ratings that did not accurately reflect an employee's performance. Additionally, it pitted managers against each other when they met to divide up merit increase funds. These meetings often turned into shouting matches, with the loudest or most articulate managers generally winners in the battle to persuade others that their employees were better. During times of poor organizational performance, when the merit increase pool was smaller and the possibility of layoff was larger, employees "would literally kill" for a higher rating. In these times "people would withhold information from each other, because they knew there were only so many (higher ratings) to go around within their group, and the more information everybody else had, the less the chance that they would stand out and get the raise."

Clearly the performance appraisal system was undermining the credibility of managers in the eyes of their subordinates and was creating a strong undercurrent of competitiveness within the organization.

Kayser and Bartlett strongly recommended to Pipp that the performance appraisal system be changed. They also felt that given his concern with changing the culture, he should do something to encourage managers to use the skills and knowledge they were being exposed to in the Management Effectiveness Workshop.

Pipp acted on their recommendations. In 1981 he commissioned a task force under Tim Tyler, the manager in charge of Compensation for D&M, to look at how the performance appraisal system could be changed. He charged the task force with creating a system that would address employee needs and current organizational problems and would be compatible with the QWL environment the firm was trying to create. The task force had representatives from all major personnel units in D&M, both line and staff. Over the course of a year, the task force collected information through literature reviews, focus interviews of employees and discussions with other companies. Their final recommendations argued for a complete change in the appraisal system and a modification of the firm's compensation administration practices.

The new system had a number of key features. First, it was to be built around an objectives setting process that tied the various levels of the organization together through interlocking objectives. Those at the top of the organization would define

their objectives for the coming year. These would then cascade downward and each successive layer would build upon the objectives of the layer immediately above. At appraisal time, employees would be held accountable for the specific objectives they had defined at the beginning of the year, using evaluative criteria that they had also set at that time. It was hoped that this system would significantly focus the efforts of employees to the critical priorities of the firm and encourage employees to support each other. This had not happened in the old "after the fact" system, where employees simply did their job, or what they thought was their job, and reported against it at the end of the year.

A second feature of the new system was that it discarded the five box rating scale, with its forced distribution. Instead, in a controversial decision, the task force recommended a "no box" system in which employees' performance against objectives would be evaluated in a narrative discussion. This, it was hoped, would move employees away from a preoccupation with a numerical rating, with its implications of classification, invidious comparison and competition, and toward skill development and growth in pursuit of performance objectives.

A third feature addressed employees' concern that they were not getting sufficient job-related performance feedback. To fill this need, the task force initially recommended quarterly performance reviews. When discussions with line managers suggested this might be too onerous, the group settled on a bi-annual

system, with an informal interim review at mid-year and a formal, written review at year-end.

The performance appraisal design recommendations were accepted and it was decided to use the new system for all salaried employees in D&M, both exempt and non-exempt. Thus, even the clerical staff would be involved in the objective-setting process. The marketing side of the firm kept the five box system, which was felt to be more compatible with very measurable sales and service activities.

Implementation, which began in 1983, was built around a massive training effort. The old performance appraisal system had been in place for twenty years and there was great concern that without the proper training and re-socialization, the new system would be neither understood nor properly used. The training design was based upon a cascade philosophy. Personnel trained the President and his staff. Each of those managers then delivered the training to their managers, with the help of a personnel resource person, and so on through all levels of the organization. Every manager learned the system and then taught the system.

Helping Managers to Change: The Value of Employee Feedback

The second of the recommendations made to Pipp by Kayser and Bartlett at the close of the Management Effectiveness Workshop concerned the changes in managerial behavior that Pipp wanted to facilitate through that workshop. They suggested that

managers would be much more likely to use the skills they were being exposed to if they had a mechanism for getting feedback on their management style from their subordinates. This would give them the capacity to "look in the mirror" and fine-tune their behavior.

Pipp liked the idea. He set up a small task force under Norm Deets, Manager of Human Resources Development, that included Tom Kayser, Sam Malone and Dick Morano, Manager of Technical Education, to design and implement a management style survey. Under this process, all employees were periodically surveyed about the managerial style tendencies of their manager. Managers also rated themselves using the same survey. These surveys were returned to a local university, where the results were compiled. Any manager with three or more employees was then sent a print-out that showed the average ratings he/she was given by his/her subordinates for each of the evaluative categories. They were also provided with statistics that "gave (them) a feel for how (they) stacked up against all other managers" and allowed them to compare their own view of themselves with that of their subordinates. Managers were required to meet with their subordinates to discuss the results and to receive help in formulating personal developmental plans. Initially, the survey results were confidential to the manager, being intended as a developmental tool. In some parts of the organization, however, they now also go to a manager's supervisor for review and to assure corrective action is taken.

QWL and the White-Collar World of Technology Development

As the problem-solving groups spread throughout the manufacturing complex, they also began to appear in other parts of the Webster site. Frank Pipp had decided when he took over the new Development and Manufacturing organization, that he wanted the QWL program to be implemented in the engineering and technology area, as well as manufacturing. At that time, it was becoming clear the Xerox's product development efforts were mired in bureaucratic inefficiency, something that would have to be quickly turned around if the firm was to become more responsive to the market. Thus, in 1981, when Pipp told his managers that the performance appraisal system would be changed and that the managerial styles evaluation program would be developed, he also announced the creation of a special unit charged with bringing QWL problem-solving groups to the development side of the organization. Tom McMullen was brought in to take over all the responsibility for the QWL effort in engineering and technology. McMullen was a brash, somewhat irreverent man, who was thoroughly committed to the value of employee participation. He put together a small staff that included Tom Kayser, who had enthusiastically approached him about getting involved in the QWL work, and they set about setting up a trainer/coordinator group and helping them to get problem-solving groups established in each unit.

The problems experienced by McMullen and his people in starting up a QWL program in engineering were, in many respects, a microcosm of those experienced throughout Xerox. The initial

reception for the program was far from warm. Some middle-managers and supervisors took it as a lack of confidence in their abilities. Others were thoroughly irritated by the time demands it placed upon them. In the early 1980's, the development organization was under enormous pressure to produce products that would reassert Xerox's technological dominance and re-claim lost market share. For many managers and supervisors, the issues being dealt with by the groups were things that a "good" employee should have been dealing with anyway. Asking managers to learn new tools and spend time meeting with teams was not seen as something that would ease the manager's burden or that they should have been doing anyway, but as an add on, an additional draw on their time. One manager paraphrased a sentiment he often heard expressed at this time: "... (this is) an extra burden ... now, damn it, you want me to meet in teams and you want me to use these damn tools, and I'm too busy. I'm just lucky if I can make my decisions fast enough to keep up with the pace and the pressure." The relatively long time it took groups to generate solutions, as they struggled with the new techniques, did not help to ease these managerial sentiments.

Among the actual technical staff, particularly the engineers, a resistance appeared that had not been encountered in manufacturing. The issue was professional pride. The engineering staff did not take kindly to the notion that people from the human resources staff were going to come in and teach them problem-solving techniques. Tom Kayser describes the situation

graphically: "... can you imagine coming in as a staff group and saying to an engineering group, 'we're going to teach you how to problem solve.' (The reaction) we got, if it was laughter, that was kindness. What we got (more often was), 'You've gotta be full of I do that for a job. What are you, as a staff group, gonna teach me about problem solving? We don't want to have anything to do with it.'" Fortunately, there were some engineering managers who encouraged involvement and the reaction of those lower down in the organization was quite supportive.

Frank Pipp recognized that there was resistance to the program and tried very hard to make his support of QWL visible. Whenever possible he spoke of its benefits and what he hoped it could accomplish. He became a regular fixture at problem-solving group picnics, taking charge of cooking hotdogs for the attendees. He also made it quite clear to his direct reports that they were expected to exhibit a similar level of commitment to the program.

Gradually, the QWL effort began to make inroads in the non-manufacturing areas in Webster. By the middle of 1982 there were well over 150 problem-solving groups operating at the Webster site.

Competitive Pressures Compel a Re-structuring of Xerox's Work Force

The overall implementation of what was coming to be called EI, employee involvement, was made enormously more difficult in these early years by the arrival of the "precipice of bad re-

sults" feared by senior management. The first strong clues to the weakness of Xerox's competitive position had come in the 1979-1980 time period when Frank Pipp had become concerned that the 8 percent per year efficiency gains that Xerox typically achieved were not adequate. He told his Vice President for Manufacturing, Charlie Christ, to look outside the firm and see what others were doing. Christ sent a team to Japan to examine the internal operations of Fuji Xerox. This was the first formal benchmarking activity undertaken by Xerox.

The team returned with shocking news. Xerox knew that the Japanese could manufacture a copier in Japan, ship it to the United States, and sell it three times (distributor, dealer, retail customer) with mark-ups each time, for about the same final price as it would cost Xerox to build it in the U.S. But Xerox did not know how they could do this. The benchmarking team found the reason why: Xerox was as much as 50 percent off their competitors on traditional indicators of organizational performance. Perhaps the most telling of these measures was the ratio of indirect workers (all those not directly involved in the actual manufacture of copier parts or in the final assembly of copiers) to direct production workers. Competitors were typically operating at a ratio of .7 indirect workers to every production worker. Xerox had about 1.6 indirect to direct laborers. Clearly the firm had become bureaucratized and excessively top heavy.

Xerox knew it would have to reduce the size of its indirect

workforce significantly. In the D&M organization, where most of the employee involvement activity was occurring, Frank Pipp set the broad guidelines for the type of organization Xerox wanted to become. "I want you to take 20 percent out. I want you to flatten the organization. I want you to increase your span of control." Managers were asked to systematically examine their areas of responsibility, to look for redundancy, for individuals who did not have as much work as they should, for functions that could be combined or eliminated, for opportunities to centralize functions or transfer individuals. Pipp's rule was one over six to twelve - one boss for every six to twelve employees.

The staffing cuts started in September of 1981 with a voluntary reduction program that offered up to fifteen months salary to those choosing to leave the firm. Thousands did, but it was still not enough. The firm had to turn to involuntary reductions in force and redeployments of personnel. Over the next two years, from November, 1981 to late 1983, Xerox lowered its worldwide workforce by almost 14,000 out of a total of approximately 117,000. In Monroe County, where Webster is located, almost 3000 jobs were lost (out of a total of approximately 15,500.) While the vast majority of the reductions came at the expense of mid-level managers and white collar support staff, the unionized manufacturing operations in Webster lost 700 jobs.

Xerox management realized that a downsizing effort of this magnitude would have to be handled with great care, else it could

devastate the organization. The two key issues, in this regard, were 1) managing the context of the reduction so everyone clearly understood the reasons for the action and 2) maintaining equity in the reduction process. Of the two, the second was, perhaps, the most difficult to resolve.

Maintaining equity during a reduction in force is in large part an exercise in balancing the needs of the organization for effectiveness against the expectations for fair treatment and security of employees. At Xerox, the tension between these conflicting perspectives was reflected in a debate over whether the reduction should be accomplished largely through voluntary or involuntary means. The protagonists in this debate were Operations and Personnel. Operations took the position that the reduction should emphasize involuntary means. They wanted to choose who would be let go so they could be certain that the best employees remained with the firm. Personnel, on the other hand, argued for the heavy use of voluntary programs to reduce the workforce. Such methods were seen as being far more "humane" and painless because those leaving have chosen to do so. What was generally unspoken, but clearly believed, was that those who stayed really wanted to because of their commitment to the organization.

Personnel won the first round of this debate. The issue at hand then became one of determining how to manage an effective voluntary reduction. To John Foley, then Manufacturing Operations Vice President of Personnel at Webster, the key to success

was "understanding where your surpluses are." This is a matter of cataloguing the primary and secondary skills of each employee, determining the total number of employees currently in each skill category in the organization. In short, undertaking manpower planning, so the opportunity to leave voluntarily could be parcelled out in a targeted fashion to those skill categories where the firm had an excess of talent. If this was not done, the firm would run the risk of losing people with critical skills who would then have to be replaced.

Much to Xerox's embarrassment, just such a situation had occurred at the firm's Xerox Square offices in downtown Rochester. Secretaries there were given the option of leaving voluntarily, without a careful analysis of the need for secretarial support and the typical turnover dynamics of the secretarial workforce. As a result, Xerox paid quite a number of secretaries twelve to fifteen months salary in severance, and then, after six months time, had to hire some of them back again. Thus, Personnel devoted a great deal of attention during this period to developing an effective manpower planning capability.

The targeted voluntary reductions, however, were not enough to ease the firm's indirect cost burden. The only choice was to turn to the involuntary route. If this was to be the case, however, the people in Personnel were determined that they were "not going to let each manager ... willy-nilly determine how they're going to select who gets laid off." They were worried that favoritism might intrude into the process and it was

of paramount importance to Foley and his people that equity should be maintained.

Personnel identified the two critical considerations in the decision to let someone go as job/performance and tenure with the firm. The fundamental issue was, "how do you trade off performance versus tenure?"

Foley went to senior management with that question and asked for guidance. Did they want to approach this as would be done with a unionized labor force, with seniority determining eligibility for lay-off? Did they want to keep the best people, irrespective of how long they had been with the firm? What was the proper trade-off?

The decision was made to construct a model to allow both factors and the age of the employee to be uniformly and rationally applied to the lay-off decision. To this end, Personnel devised a three-dimensional matrix that had tenure intervals along one axis, performance ratings along the second axis, and employee age intervals along the third. Performance ratings ranged from one to five, following the rating categories still in use in the firm's five box performance appraisal system (The implementation of a new appraisal system, described above, did not begin until 1983). To protect employees who had just changed jobs, performance ratings from the last three appraisals were averaged and that number was used to place an employee along the performance dimension.

For Foley and Personnel, the problem was then to define

which cells of the matrix were candidates for lay-off. Performance was the first factor looked at. Anybody with an unsatisfactory performance rating (one to two) no matter how long he/she were with the firm, was "fair game" for lay-off. Likewise, exceptional performers (those rated five) were generally safe. It was the employees rated either three or four on the five point scale that had to be carefully examined. Shorter tenured, younger employees at each performance level were more at risk than longer-tenured, older employees. Those rated at three at a given tenure and age level were more at risk than those rated a four.

The most difficult decisions were those that involved long-term, older employees who were only modest performers. Operations typically argued for letting these people go. Foley dug in his heels in these situations. He felt that the firm should "give some leeway" to long service employees. He would argue, "...this guy's been around here for 25 years and (you) tell me he's a turkey now. Don't you tell me now he's a bad performer. You kept him over 25 years, don't tell me he's bad today."

The matrix was finalized through an exhaustive consensus process involving line management, corporate management and Personnel. In addition to the base matrix, special overlays were created to account for affirmative action concerns.

Beyond affirmative action issues, Personnel was concerned about the impact of the reduction program on the age profile of the firm. In such programs, it is inevitable that more younger

than older employees will be let go. In part, this is a function of Federal age discrimination laws that make the layoff of older employees a delicate matter. If Xerox was not to mortgage its future viability by letting go those younger employees who might grow to be significant contributors, the age profile would have to be protected. Thus, Personnel argued that even though the firm was laying off large numbers of people, it was important to continue with a reasonably active college hiring program. The hiring program should be tied to the manpower planning process. Skills that were in short supply or skill areas that had predominantly older employees would be targets for the hiring program. Senior management agreed, but the decision was never well understood or well-received in the organization, even after a considerable communication effort to explain it.

The layoffs were a very traumatic time for those Xerox managers who survived. Despite all the planning and analysis that went into defining who should be let go, many managers felt that insufficient attention was paid to the actual layoff process. Of particular concern was the need for counselling to help managers actually carry out the reductions. One senior manager captured this sentiment well: "...there was the overall problem of the layoffs and how do I, as a manager, deal with that in a practical manner? How do I actually interact with other human beings about the fact that I have to let them go?" Personnel provided some training to assist managers in the activity; the prevailing sentiment, however, was that it was not enough.

Competitive Pressures Impact 1983 Union Contract

The reduction in force was aimed at lowering the indirect labor component of the firm's costs. As Xerox's financial performance worsened, however, direct labor costs also came under scrutiny. It became evident to both the company and the union that direct labor would not remain untouched - they also would have to feel some pain. The 1983 contract negotiations would define the extent of that pain.

Xerox management recognized that this would not be easy for the workforce to accept. The firm's sales figures were still very impressive and were well publicized. What wasn't publicized were the structural weaknesses that were leading to a sharp drop in the firm's return on assets. This story needed to be shared with the workforce, else they would never accept the wage and benefit concessions that were expected to come out of the negotiations.

Sam Malone, from Personnel in Webster, and Joseph Cahalin, from the corporate offices, were given the task of preparing a series of slide shows that would be used to explain the firm's competitive position to the union workforce. Working closely with the benchmarking people on the corporate staff, they painted a picture that "peeled the onion" on Xerox performance. Point by point Xerox costs were compared to comparable Japanese organizations. Everything from average employee benefit levels to direct to indirect ratios was addressed. Great care was taken in crafting the message and designing the visuals so as to inform

without alienating. The message, however, pulled no punches: "...if (Xerox) couldn't become competitive in the United States, there were opportunities to move (the business) offshore."

The ACTWU leadership supported the effort as much as possible. They had been shown the benchmarking studies by senior management and could clearly appreciate the changes that would be necessary for the business to survive. They also knew that such things as a pay freeze and reduction in benefits would not be an "easy sell". Thus, they reviewed the text of the presentation and advised Malone on the best way to make certain points.

The presentations were titled, "The Choice Is Ours." There were three of them and delivery was spread out over the course of a year, largely in 1982. Employees were pulled off the line in small groups of about 30 and went to the cafeteria, where a senior manager (usually a Senior Vice President) made the presentation and answered questions. Union officials showed their support by being present at the sessions. Every effort was made to show that this was a joint effort.

The results of the 1983 contract negotiations reflected the sober message of the presentations. The new contract "had no wage increase in the first year, it included changes regarding co-pay provisions for health benefits, and contained a highly restrictive no-fault absenteeism program. (Additionally, it allowed a temporary workforce of a limited size to be hired for a limited duration, but at below union wage rates.) The health benefits changes and the one-year wage freeze were seen as

concessionary and hence resented."*

The contract, however, was ratified. Malone believes that the presentations played a significant role in this happening. He is also quite clear that the presentations were effective because they came out of a joint effort, between union and management. "And that's a tribute ... to the union's recognition that their success is predicated on the company's success."

Victories And Difficulties In The OWL Program

All the while this downsizing was occurring, Argona, McMullen and their Trainer/Coordinators continued to nurture the employee involvement process. This was proving to be a frustrating enterprise. The top-down culture of Xerox, with decision making and follow-on action driven by management, consistently got in the way. Additionally, the very general charge to the problem solving teams led many to spend time on projects such as improving reward and recognition for employees or significant facilities modifications that were unlikely to be implemented because of policy or budgetary concerns.

After the initial enthusiasm for the program wore off, the number of employees volunteering for the problem solving groups began to decline. In part, this was due to employee discontent with the layoffs that were starting to occur. More fundamentally, however, the initial volunteers for the program came from

*Tracing a Transformation in Industrial Relations, U.S. Dept. of Labor, Bureau of Labor-Management Relations and Cooperative Programs, BLMR 123, 1988, p. 9.

that group of employees who were quite favorably disposed to employee involvement. By the most optimistic of estimates this group constituted only a minority of the total workforce, perhaps 30 percent. The rest of the workforce was either skeptical about employee involvement, and thus adopted a wait and see attitude, or openly hostile, because of fears that it would lead to job loss, a weakening of the union or poor decisions.

The Trainer/Coordinators found the opposition, distrust, lack of cooperation and indifference very difficult to deal with. For many of them, facilitating employee involvement was more than just a job; it was a moral imperative. While this made them persuasive advocates for the program, it also proved to be their achilles heel. They believed in employee involvement and devoted enormous physical and emotional energy to try to get those either hostile or not cooperating to see the light. In many respects, they and the program would have benefitted more had they devoted more of their time to improving existing problem-solving groups or encouraging the "fence-sitters" to get involved. By focusing on the hard cases the Trainer/Coordinators increased their own frustration level to the point that some simply burned out. Others got so discouraged with the lack of management cooperation, that they "retreated" into their offices and took a "we'll show you" work slow down attitude, deemed acceptable in the prevailing union culture.

Xerox management was not content with the plateaued participation levels. While the problem-solving groups in existence

were having a positive impact on costs and production, greater participation was needed if the company was to turn around. After some analysis, it was decided that part of the problem was that many employees did not have a sufficient understanding of the QWL process and the benefits it would bring to both company and employees. Manufacturing Operations decided to address this issue by making QWL training mandatory for all employees. This proved to be counterproductive. While some employees who had been sitting on the fence now got involved, the majority simply went through the motions while in training and still did not become active participants in the process.

The polarization of the workforce around the value of QWL activities did not mean that the program was not having an impact on the performance of the organization. In fact, the participative activities had some remarkable successes. Perhaps the most noteworthy of these involved a special study team put together in late 1981 to address a company proposal to outsource the assembly of wire harnesses used in Xerox copiers. As this has been described in detail elsewhere*, we will only summarize the key activities.

The Xerox proposal to subcontract the assembly of wire harnesses was predicated on an internal study that suggested that over \$3 million could be saved by such action because of the labor intensive nature of the work. If this was done, however,

*Klingel S. and A. Martin (Eds.), A Fighting Chance. Ithaca, New York: ILR Press, 1988.

it was highly likely that 180 workers - an entire department - would be laid off. This was unacceptable to the union and the union leadership asked to meet with management over the issue. In those discussions, the General Shop Chairman of the union, Anthony Costanza, argued that an action of this magnitude, that affected the lives of so many workers, should not be made unilaterally but should be dealt with in a way that was consistent with the joint decision making principles agreed to in the 1980 contract negotiations.

The company agreed and temporarily suspended the outsourcing activities. A joint study team was established to examine the issue in detail and make recommendations. The team was composed of six carefully selected employees from the wire harness department, an engineer to act as a technical resource, and a manager. The team was given six months to "find ways to be competitive, improve quality, cost, and delivery performance of the business to levels which will assure a positive competitive position and, ultimately to secure jobs."*

After receiving training in problem solving, group dynamics, and Xerox's internal accounting methods, the team turned to the task. They were assisted in their analysis by Peter Lazes, the consultant who had been supporting the QWL activities.

Many roadblocks to success appeared along the way. The team had to learn to work together as a team and not be driven by

*Tracing a Transformation in Industrial Relations, U.S. Dept. of Labor, Bureau of Labor-Management Relations and Cooperative Programs, BLMR 123, 1988, p. 9.

its manager and engineer members. It had to overcome organizational resistance to providing confidential information to such a grass roots group. It had to gain the trust of the hourly labor force by involving them in the analysis as much as possible. It had to meet the rigorous benchmarking standards set by the corporation.

The team succeeded in addressing all of these issues. And when it completed its report, it proposed changes that appeared to more than meet the financial savings requirements. Noteworthy among their recommendations were several that went against provisions of the collective bargaining agreement.

The team made a presentation to David Kearns, the President and CEO of Xerox, and other senior executives. John Foley, the Vice President of Personnel in Manufacturing Operations, describes the impact of the presentation this way: "To see an hourly production worker who five years ago, very frankly, although we never said it, was treated (as though he should) bring (his) hands and leave (his) brains at home... we had an army of industrial engineers telling them exactly what to do... to see these people coming in and talking about ROI's and... too much overhead; talking about how we don't need all those engineers to support us; that we don't need inspectors, (because we can) inspect our own work. (You could see they had) a tremendous commitment to changing the business ... You have to feel and touch that to really see the power of employee involvement." Kearns was impressed.

To check on the accuracy of the study team's analysis, Frank Pipp asked Norm Rickard and his benchmarking people to examine it. They found some small flaws that brought the total projected savings to less than the \$3 million needed. More important, however, the proposals that contravened the union contract could not be implemented until they were renegotiated when the next contract talks came up. That would be in 1983. The management of the wire harness area was inclined not to accept the team's recommendations because they were now several hundred thousand dollars short of the target; to essentially say to the team, "You failed. You missed by two tenths."

Hal Tragash, the corporate Manager for Organizational Effectiveness, had been at the presentation by the team. When he heard that its proposals might be rejected, he went to David Kearns and privately informed him. He also suggested to him that "You better tell him (the wire harness manager) that for two tenths, he buys the decision or you've lost employee involvement forever." Kearns intervened and the non-contract-related proposals were implemented.

Serendipitously, Tragash used the wire harness study to develop a coalition at the corporate level between himself and Norm Rickard, the head of the benchmarking group. Seeing Rickard's role in the potential rejection of the study team's proposals, Tragash confronted Rickard. "...we seem to be here on two different missions. You seem to be a person that's bringing problems for people to work on or challenging them with problems.

I seem to be a person bringing tools for solving problems. What if we were to become partners in this and work together, (bringing your) benchmarking information together with our problem solving information. (Thus,) instead of benchmarking (data being) owned by the staff and the experts, (it could become a) part of everyday life for people... So that we (can) have meaty problem-solving going on around your main business issues."

Rickard agreed and a partnership between the benchmarking staff and the organizational effectiveness staff was cemented. It was, however, a distinctly high level staff partnership. Deep in the organization there was considerable "vagueness" about the relationship between the two functions. One was seen as existing "to make life better." The other, "to make business better." That vagueness often led to conflict. But the staff partnership between the functions later played a key role in developing the firm's Total Quality program.

QWL Moves Into Marketing And Service: The Value of Celebrating Success

Up to this time - early 1983 - the QWL program had been established in Manufacturing and in Development. Noteworthy in its absence from the program, however, was the Marketing side of the firm. Except for some early experiments with service teams, the part of Xerox that contained the largest number of employees showed little interest in QWL activities. This was shortly to change.

In mid-1983, Tom McMullen, who headed up QWL activities in

the Development side of the firm, met with Tom Kayser from his staff and Larry Pace, who worked for Nick Argona in Manufacturing. They were discussing the progress of the QWL program to date and speculating about how they could help the program to take off. Kayser describes the key event of that discussion this way: "We were sitting in Tom McMullen's office and McMullen said, 'We gotta do something to celebrate the good things that are going on, that people lower in the organization are doing in terms of saving the company money and doing some worthwhile things that middle and senior management don't know anything about - or ignore or don't care about. We (need) to have some way of celebrating teamwork.'" Pace and Kayser agreed and the group brainstormed on how best to accomplish the goal.

From that conversation, Xerox Teamwork Day was born. Teamwork Day was meant to address the need for recognition and reward in the QWL program. The format was quite straightforward. Problem-solving groups that had either successfully completed a task or had reached significant milestones in a task would come together and "display their wares" to senior management. By providing a forum for high level accolades to be given, pride in accomplishment would be reinforced and an incentive to participate in the QWL activities would be created.

The first Teamwork Day was held in October of 1983, in the cafeteria of the Development area. Approximately 40 problem-solving groups from the Development area set up "slip-shod" booths to tell their story. Expense was minimal, but enthusiasm

was high.

Hal Tragash took on the task of getting the Chairman and the President to come and preparing speeches and the schedule. He also devoted considerable energy to see to it that Marketing people came, "so they could see this concretely in action." Others "strong-armed" the senior staff in D&M.

Teamwork Day was an immediate hit. The senior executives spent time interacting with the groups and hearing firsthand what they had been doing. The enthusiasm and sincerity of the problem-solving groups impressed them. So did their accomplishments.

In 1984, the Manufacturing area got heavily involved in Teamwork Day and the number of groups participating shot up. This was noticed in Marketing and given the natural "competitive-ness" of the area, they vowed to be a part of the program in 1985. By 1987, Teamwork Day had grown to an event of such magnitude that it had to be held in the Riverside Convention Center in downtown Rochester. Tragash describes what had happened: "Thus, an event first meant to be a recognition and reward activity, sponsored by a Human Resources guy, became a sales vehicle for us to drive the strategy beyond the walls of the concrete world of manufacturing, research and engineering and out into the field as well."

A Strategic Vision Begins To Take Shape

While all this was happening down in the trenches, Tragash and Argona were also at work at the strategic level. Their research had suggested that QWL activities were not powerful enough to get Xerox where it ultimately wanted to go. As Argona said, these activities were merely a convenient and effective "process entry", useful to sensitize everyone to the operating needs and performance possibilities of employee involvement.

At the behest of senior management, Tragash and Argona put together a "vision" of how the organization should evolve. In their view, if Xerox was to continue to improve, the organization had to move "beyond joint problem-solving and (become a) full-fledged, de-layered, highly self-empowered (organization)," that minimized hierarchy. This would involve a development process that helped employees to evolve from being "citizens of their work, to citizens of their work teams, to citizens of their business unit team, to citizens of the global business." All in all, a very significant transformation of consciousness, that would require changes in organizational structures, training programs, and reward system if it was to be accomplished.

A second "thought piece" produced by Tragash that had an impact on senior management concerned the issue of quality. In the early 1980's, shortly after Fuji Xerox had won the Deming Prize for quality, there was a great deal of discussion about quality in the senior ranks of Xerox. David Kearns was particularly interested in its possibilities. Noticing this, Tragash

and Norm Rickard, who was involved with the Business Effectiveness group, asked Kearns if he would like a plan that identified "what it would take to, figuratively if not literally, (win a Deming Prize) in the United States." Kearns was very interested. He sent Tragash and Rickard off with the task to develop, within 10 days, a blueprint for becoming a total quality company.

Rickard and Tragash set to the task, assisted by Paula Fleming from Tragash's staff and John Kelsch from the Competitive Benchmarking group. From the Fuji Xerox experience, they recognized quickly that they "were as much in a people, behavior change business as (they) were in a quality tools business... (that) if anything, it was more culture change than it was quality tools." With that in mind, they devised a strategy, building upon current employee involvement and benchmarking activities. Noteworthy in their approach was the notion of the Human Resources function as a "sub-contractor of supportive policies and practices... It would sub-contract training; it would be the supplier of reward system changes, it would be the supplier of changes to the recognition and promotion systems, and (would develop the) communications (practices)." Their report, when delivered to Kearns, would significantly influence his thinking on quality.

By the latter part of 1982, the various strands of thinking and experience were beginning to come together at the corporate level to form Xerox's commitment to quality as a vehicle for organizational renewal. The Fuji Xerox experience provided a

powerful and accessible model of corporate improvement, with quality as its core. The grass roots experience of employee involvement and group-centered problem solving in the Manufacturing and Development organizations showed the potential for increasing organizational effectiveness that lay untapped in the non-managerial workforce. The elemental intransigence of Xerox's managerial culture to the need for change and to participatory methods for improvement, suggested that a voluntary strategy for renewal might take a great deal of time. And the simple demographics of the workforce, with the vast majority of the firm's employees in non-manufacturing and non-engineering positions, generally untouched by employee involvement activities, suggested the need for a comprehensive change program.

The Quality Strategy Is Developed

In September of 1982, the Xerox Corporate Management Committee approved total quality as the guiding business principle of the firm. Several months later, in early 1983, David Kearns met with the top 25 Xerox senior managers to discuss the firm's competitive position, to put forth the notion that a total quality program was to be the method for improving the firm's performance, and to discuss the basic elements of such a program. After two days of discussions, consensus was reached on the broad outlines of the quality program and a title was given to it: Leadership Through Quality.

Leadership Through Quality was not an "off-the-shelf"

quality program that was transplanted into Xerox. It was a program that took account of Xerox's culture, philosophy, and business products and opportunities. Quality, as defined in the Xerox Quality Policy presented earlier in this report, was different than the "conventional" notion of quality in several ways. First, quality was not defined as "goodness" or "luxury", but as "conformance" to customer requirements. Second, Leadership Through Quality emphasized the prevention of errors in production or delivery of a product, not the post-hoc inspection of products for defects. Third, Xerox emphasized "error-free output in meeting customer requirements", not some prescribed allowable level of defects. And finally, Xerox measured quality not through indices, but by the "costs incurred when customer requirements are not satisfied."

Two special task forces were commissioned to design the actual quality strategy. The lead group, called the Quality Implementation Team, had fifteen members and was responsible for the detailed implementation strategy. It was a high-level, international group, with members nominated by most of the major business units of the firm. The composition of the team was purposely made very diverse, so that from "day one in the design process...the issues of the operating companies get addressed and there is ownership of the process before we begin to roll it out and somebody has a hiccough." Several of the senior corporate officers who had been in the original design meeting with Kearns, attended the Implementation Team's meetings as ad hoc members.

Noteworthy in their absence from the Implementation Team was the ACTWU. When the team was being formed, Tragash had suggested to David Kearns that he ought to include Tony Costanza, the union's General Shop Chairman. Kearns demurred. The Xerox senior management team would come to regret that decision when the implementation began.

The Quality Implementation Team was supported by the Quality Training Task Force. This ten person group was formed in recognition of the comprehensive educational effort that would be required to bring about the cultural transformation of the firm. As with the Implementation Team, the Training group had an international membership. Both task forces were assisted in their work by outside consultants, particularly David Nadler and the Delta Consulting Group which helped the Xerox senior management group and the task forces to develop a conceptual model of a major organizational transition.

For the next six months, the two task forces worked on their respective problems. This was a very intense time for team members. The work was being done at the corporate offices in Stamford, Connecticut. On weekends team members would fly home and then return early on Monday.

Commuting to Stamford was not the only thing that made this a difficult time for task force members. Getting their arms around the task also caused frustration, particularly, in the Training Task Force. This group was dependent on the Implementation Team for the strategy defining how a total quality environ-

ment would be created in Xerox. It was then to provide training designs to support that strategy. Unfortunately, the Implementation Team was having difficulty deciding how it wanted to proceed. This lack of strategic direction was very frustrating to Training Task Force members: "Why don't they decide what they want, so we can develop the training program to support it?" It was clear that the Implementation Team was "struggling to frame what it was they wanted in terms that you can design a learning program around."

After some months of this frustration, the Training group began to take matters into its own hands. It started to devise training approaches and send them "up" to the Implementation Team for review. In essence, the training group began to shape strategy in a bottom-up fashion. As Russ Chappell, who worked on the training proposals said, "...subsequent experience has caused me to realize that this is probably more typical than atypical." It worked largely because 1) the overall framework for the meaning of quality at Xerox had been very well defined by the senior executive group, working with outside consultants, and 2) everyone realized the firm was involved in designing a massive cultural shift. The fact that it worked, however, did not make it any the less taxing for the actual players.

The strategy that was ultimately devised was built around a nine-step Quality Improvement Process (QIP). The steps were subdivided into three phases: 1) planning for quality; 2) organizing for quality; and 3) monitoring for quality. The

planning phase involved (1) a clear identification of what a group/unit/function within the firm produced and (2) the internal or external customer for that output; (3) a delineation of the needs/requirements of the customer; and (4) the transformation of those requirements into a set of detailed supplier specifications. Once this had been accomplished, the organizing phase would begin. Here, the task was to (5) lay out a detailed plan of the work that must be done to meet the customer's requirements, including resources needed, budgets, timing of activities, allocation of responsibilities and authorities; (6) select a set of measurements and checkpoints for the critical steps in the work process, so as to facilitate control of the process; and (7) determine the capability of the selected work process to deliver the expected outcome using, where necessary, the six-step Problem Solving Process developed earlier for the QWL activities.

Finally, in the monitoring phase, (8) the results of the work process would be evaluated and if process improvements were found to be necessary (9) the whole Quality Improvement Process would be repeated, to assure continuous improvement. It was expected that early in the implementation of Leadership Through Quality, the Quality Improvement Process would be used by operating units to more closely align their mission and day-to-day activities with the needs of their customers. Once that was accomplished, it would be continuously reapplied, together with the Problem Solving Process, to insure the best possible organizational performance.

The evaluative context for the Quality Improvement Process was to be provided by Xerox's competitive benchmarking program. Given the ever changing nature of the competitive marketplace, Xerox took the position that the adequacy of its performance was a constantly moving target. In all of its activities, Xerox desired to be at least as good as the best practices found in industry. Thus, all units were required to periodically scan the environment to determine how their functions were being accomplished by others and to then apply the Quality Improvement and Problem-Solving Processes to meet the benchmarked standards.

The process of organizational improvement was clearly defined as group-centered. The Implementation Team believed that solutions that came out of a rigorous group analysis by those closest to the problem would be more effective and innovative than those coming from a single person. The quality strategy, therefore, clearly affirmed employee participation as a fundamental component of Leadership Through Quality. It also defined an array of statistical tools (histograms, pareto charts, fishbone diagrams, control charts) that were to be used by the groups to identify problems and "un-bundle" them into their constituent parts.

Creating A Culture Of Quality

The Quality Improvement Process, benchmarking and employee involvement were the components of the Leadership Through Quality strategy that dealt with the actual process of quality improve-

ment. The design task forces and their senior management clients recognized that their strategy also had to address the issue of buy-in. Instilling a quality orientation in all employees and insuring that the various processes and analytical techniques were used by all, would required a rigorous acculturation program, else Leadership Through Quality would be treated as simply another "program of the month." The Implementation Team identified four major elements to this acculturation program: training, communication, reward and recognition and senior management role modelling.

Training was to be the mechanism by which Xerox employees developed the knowledge and skills to improve the quality of their outputs. Early in the design process, it was decided that all employees would be required to undergo training in the basics of Xerox's quality improvement effort. Training would not be voluntary. Additionally, to reinforce the group-centered nature of Leadership Through Quality, all training was to be conducted in "family groups" composed of a manager and his/her direct reports.

Perhaps the most noteworthy element to LTQ training, however, was the notion that it would start at the very top of the organization and then cascade downward through successive levels until all had been trained. The mechanism for this was a technique known as LUTI: Learn-Use-Teach-Inspect.

The mechanics of LUTI were deceptively simple. A manager in a given area would undergo training in the core modules of LTQ

(Orientation to the need for quality at Xerox and to the basics of LTQ; Quality Improvement and Problem Solving Processes, basic statistical tools, and managing quality skills; specialized technical skills, where necessary) with his family group. The training would be jointly delivered by his/her boss (the manager in charge of the family group) and a professional trainer. When the training was complete, the family group would select a problem confronting the unit and would apply the quality improvement principles to resolve it. During this process, the group would be coached by its manager. Upon completion of the work, the family group manager would inspect the output of the group's work, and debrief the group on both process and substantive issues. Theoretically, members of the family group would now be proficient in the Quality Improvement Process. Members of the family group would then go into their own units and teach their subordinates the principles, again with the help of a trainer. They would oversee the application of those principles to a real problem needing improvement and inspect the output, and so on, down through the organization. A strict rule was that all steps (Learn-Use-Teach-Inspect) must be satisfactorily completed, before the training could cascade downward to the next level.

The LUTI technique was employed "to keep accountability focused in the line." The training design group knew that the impact of conventional training degrades quickly. Russ Chappell, a training professional in the U.S. Marketing Group, put this well. "Unless...there is application and practice,

there won't be any real change. If there is to be real and continuing application, it needs to be built into the management review-planning-direction process..." LUTI would force managers to undergo the training twice, once as student and again as trainer, and would then encourage internalization through the use and inspect steps of the process. It also clearly gave the message that concern for quality was a central part of the managerial role.

The communication component of Leadership Through Quality was based on the simple premise that "formal communications will not succeed if they are at odds with our behavior."* The Implementation Team believed that the message that Xerox "was a quality company" had to be repeated over and over, without frills or slogans, as had often been done in the past with productivity campaigns. Sincerity and consistency were to be the hallmarks of all communications.

A key element to this approach was the recognition that "Xerox managers at all levels are themselves powerful communications media. Consequently, all training for managers in support of Leadership Through Quality will contain a segment on communications, including techniques for soliciting feedback, ensuring understanding and facilitating two-way communications."* As the primary engine of quality improvement was to be problem solving by employees, the communications strategy placed great emphasis

*Xerox Greenbook, Internal Strategy Document For Leadership Through Quality, August, 1983.

on management's responsibility to facilitate the flow of information upward, about concerns, questions and needs, and downward, about performance expectations and data necessary for effective problem-solving. In all communications, realism was to be emphasized.

Recognition and reward was dealt with explicitly in the Leadership Through Quality strategy, in part because of the lessons learned in the earlier QWL program. In that effort, the major inducement for employees to participate in problem-solving activities was the benefit they would gain from improving their working situation- an intrinsic reward. This meant that the program was generally appealing only to those for whom such rewards were important. Employees seeking monetary rewards for their problem solving activities were forced, under the QWL program, to pervert the firm's suggestion systems. These systems had been designed to reward non-salaried individual performers. In the QWL program, it was not uncommon for groups to put in their suggestions and, if they were accepted, to split the reward among group members, including the managerial or professional members. There were no monetary (extrinsic) inducements for managers or supervisors to cooperate with the grass roots problem-solving activities or, indeed, to go out of their way to recognize employee contributions as a result of participation in the QWL program.

Leadership Through Quality confronted the issue of managerial cooperation and support head on. Managers were told that

they would be held accountable for recognizing groups or individuals immediately for positive actions taken in pursuit of Xerox's quality goals. This also meant recognizing managerial peers or subordinates who were committed to the LUTI process and, thus, facilitated the quality performance of others. The Leadership Through Quality strategy mandated changes in the "Management Resource Planning" process, the firm's managerial succession planning system, to reflect commitment to and expertise in the use of the Quality Improvement Process. Promotion would only occur if such commitment and expertise had been shown. Likewise, the performance appraisal systems in use in the firm were to be examined for compatibility with LTQ and the actual appraisal discussion was separated by a period of no less than three months from the annual salary review process, so that individual performance could be discussed in a more developmental climate, not one dominated by concern over money. Finally, the strategy recommended the creation of special bonus systems to ensure a sharing of the financial benefits that would accrue to the corporation as a result of improvements in the firm's market competitiveness.

Perhaps the most powerful statement in the implementation strategy that Leadership Through Quality was about cultural transformation was the emphasis placed on senior management behavior. The Implementation Team recognized that employees throughout the organization took their cues about what was important in Xerox from senior management. In this regard, behavior was far more influential than words. However, just as

the senior managers were the most powerful influence on the culture, they were also the product of that culture. If cultural transformation was to occur, the senior team would have to move away from this cultural programming and behave differently. This was not merely a matter of learning new skills and ways of handling day-to-day matters, it involved giving up old ways of doing things. The Implementation Team was quite explicit that this should not be left to happenstance. A set of guidelines was developed to help managers define what it meant to be a role model supporter of Leadership Through Quality. These specified what managers should do to support competitive benchmarking and employee involvement, how they should use the Quality Improvement Process, how they should sponsor feedback activities and foster teamwork at all levels of the organization, and how they should promote, recognize and reward employees who practiced Leadership Through Quality. If these were followed, it was hoped the senior management team's unconscious work style would evolve toward compatibility with the needs of Leadership Through Quality and they would, thus, "make the corporation's transition to a total quality company happen, let it happen and help it happen."

In August of 1983, the Quality Implementation Team met with their twenty-five senior management clients at the Xerox training center in Leesburg, Virginia. The Leadership Through Quality implementation strategy was presented to the group and each manager was given the opportunity to propose modifications. The unspoken theme for this session was buy-in. Senior managers were

given the opportunity to make changes so that they could put their "finger print" on the strategy - could point to the exact words they had contributed. Through such action, it was hoped the commitment to implement would be reinforced.

The strategy and a five-year implementation plan was codified in a ninety-two page book that was issued shortly after the Leesburg meeting. Bound in light green covers, "The Green Book" became the bible for quality at Xerox. It was referred to constantly by senior management and often quoted to rationalize actions taken. With time, it developed a totemic aura in the firm. Managers gauged their relative importance by whether they had their own copy.

The book was important as much for what went into creating it, as what it said. In the heyday of Xerox's rapid growth, the firm developed a penchant for rapid action. Managers were evaluated on their proactivity, their propensity to take action. The Green Book was a significant departure from this "ready, fire, aim" mentality. It grew out of a year-long process of careful self-analysis and long-term, strategic thinking. That alone conveyed the message that Leadership Through Quality was different from other programs.

John Foley, the Vice President of Personnel in Manufacturing Operations, captures well what Leadership Through Quality was all about. "Leadership Through Quality...was a process to change the whole attitude and head-set of each and every employee and give them a sense of commitment to the organization; a (feeling)

that (they) have to improve everything that's done in this organization...to

...treat Xerox's costs the way (they) treat their own private checking account when (they) spend money...It's a style change (to facilitate) people's getting involved. (Our) people always wanted to be involved. Employee involvement is a misnomer; it really should be management involvement. The employees always wanted to get involved, but weren't allowed to. The managers had to allow them to get involved. This was very threatening to managers, because they felt they were losing control."

This theme was echoed by a manager in the Marketing area who was a central player in the implementation of both employee involvement and quality in that group. In designing Leadership Through Quality, the Implementation Team was "mindful of...what employee involvement would do to change the culture (in Marketing), which was truly not much. What it did was create another activity (for the workforce), but there was no evidence of any significant management shift in behavior or attitude. (There was) a kind of indulgence to employee involvement and the hope that it would produce some useful benefits, and yet with a limited amount of commitment to the proposition that it would....(Leadership Through Quality) truly was a rescue operation (for the QWL program in Marketing)." While such strong sentiments would not generally be found in Development and Manufacturing, where the QWL activities made significant contributions to corporate performance, they are clearly reflective of

the difficulties confronted by Xerox when implementing the QWL program in Marketing.

The Leadership Through Quality Implementation Begins

To oversee Leadership Through Quality, Xerox created a new hierarchy of positions. A Corporate Vice President for Quality had overall responsibility for the firm's Quality efforts. Operating units, likewise, each appointed Vice Presidents for Quality. To drive the strategy at the nuts and bolts level, each VP for Quality named one or more Quality Specialists. These were middle to lower-middle managers who were charged with organizing the LTQ training and assuring its consistent application to the unit's output. As with the first Trainer/Coordinators in the QWL program, the first group of Quality Specialists "was a mixed bag." Some were handpicked. Others "were between jobs and it was convenient for them to take the job." Only a few had any knowledge of training skills, organizational change techniques or group facilitation skills. The training program was designed to be delivered over a six day period. The first day involved a set of activities to build team consciousness in a family group. This was followed by five days dealing with the Problem Solving Process, interactive skills and the Quality Improvement Process.

Early in 1984, the Quality Specialists and QWL Trainer/Coordinators (now called Organizational Effectiveness Specialists or facilitators) were taught the entire Leadership Through Quality training program at the Leesburg training center.

The actual launch of Leadership Through Quality training began in April of 1984, starting with the senior staff of the Development and Manufacturing Group. The start-up of Leadership Through Quality in D&M was generally characteristic of what went on in the rest of the firm. However, because D&M began the program six months ahead of all other Xerox divisions, it confronted all the implementation barriers first and, thus, was forced to devise ways of overcoming the barriers on an intensely reactive basis. Tom Kayser, now manager of D&M Organizational Effectiveness, explains this situation graphically. "It was like we were on the leading edge of a black hole. We were confronting the unknown on a daily basis. We were involved in this massive organizational change, armed with the Green Book strategy and some tools, marching relentlessly onward, but never really knowing what tomorrow would bring. Development and Manufacturing took on the role of LTQ pioneers for the rest of Xerox. It was a wonderfully exciting time."

At the time of the launch, Development and Manufacturing was headed by Wayland Hicks, who had taken over for Frank Pipp in 1983. Hicks wanted to start the cascade as soon as the training of Quality Specialists was completed. However, few of the Quality Specialists in D&M were particularly expert as trainers and none really had sufficient command of all the modules to take on the task of training Hicks and his direct reports.

Tom Kayser stepped into the breach. Kayser had attended the Leesburg training sessions, even though he was not formally

in the Quality organization. As an experienced management trainer and master facilitator, he had a thorough command of the interactive skills and Problem Solving Process modules. He needed only to study the Quality Improvement Process. Thus, he volunteered to train Hicks and his family group. He was assisted by trainers/designers from the corporate staff who had put the program together, but had never seen it delivered to a management team. Using hand written materials which they modified as they went, they trained Hicks' group and fine-tuned the modules.

Upon completion of the training, Hicks' family group had to select a real project that they could work on together, applying the tools learned in training to facilitate its solution. This they did. However, in a very proactive organization, seeking improvement in its bottomline, patience is not generally found in abundance. Hicks pushed very hard to get the project over with, so that the training could be cascaded downward. This was to be a relatively common occurrence in the Quality training: managerial urgency for results undercutting the effectiveness of the LUTI process.

By now a group of trainers for the program had been selected. Some of this group were managers who wanted to get involved in the program; some were personnel staffers who had some training background and wanted to return to that work; and still others were drawn from non-training personnel functions. Kayser took on the task of training the best of this group to deliver the Leadership Through Quality program. He used his own training

sessions with a number of the family groups of Hick's direct reports as a laboratory for how the training should be done. Once this group of "trainers-to-be" had finished its training, the members trained the other trainers.

Beyond actually delivering the training to the first two levels of family groups in D&M and training the trainers for the program, Kayser also worked with the Quality Specialists on organizational development and facilitation skills. When Leadership Through Quality was announced, Victor Muth was named Quality Vice President for the D&M organization. One of Muth's first actions, after selecting the Quality Specialists, was to set up a Quality Network to both plan and control the Leadership Through Quality implementation. Network meetings were held every two weeks, for a whole day. At these meetings, Quality Specialists discussed aspects of the implementation and shared information and experiences. Kayser was asked to join the Network, "not as a Quality Specialist, but as a facilitator." He contributed to the content of the discussions but, more important, he began to teach the Quality Specialists about organizational development, facilitation skills and organizational change tools and techniques. At times, he turned parts of the Network meetings into a laboratory where new processes and skills could be practiced. Kayser and his boss, Tom McMullen, saw no inconsistency in this action. They were charged with developing employee involvement activities in D&M and employee involvement was an integral part of Leadership Through Quality. To them the two activities became

closely intertwined and mutually beneficial.

The same could not be said for many of their colleagues who were supporters of QWL activities. Almost from the day it was announced, Leadership Through Quality was seen by many of these people as a threat to employee involvement. The union was very upset that Leadership Through Quality - a major corporate initiative - had been developed without its involvement. This seemed totally contrary to the spirit of the 1980 and 1983 contract negotiations that had emphasized collaboration between the union and the firm. A salient fear often heard in the first years of Leadership Through Quality was that the program was management's attempt to disenfranchise the union and the workers, to manage its business in a way that minimized union involvement.

Perhaps those most captured by this fear were the QWL Trainer/Coordinators who were now called Organizational Effectiveness Specialists. Many of the Xerox employees who were drawn to this role, both managers and union members, had strongly held beliefs about the value of participative activities. For them, employee participation was a fundamental moral imperative. They were appalled at the prospect of a "top-down" change effort that apparently gave no role to the union, and, in their eyes, only recognized the "grass roots" QWL program by appropriating some of the techniques and methods used by that program. Many equated the lack of union participation in the design of Leadership Through Quality and in its early implementation as indicating a lack of commitment to true employee empowerment. If Leadership

Through Quality was a customer focused program, how, they reasoned, could senior management ignore one of its key customers: the union?

Concern over union involvement in Leadership Through Quality came to a head over the LTQ training. Two issues were important: 1) Who would design and deliver the training? and 2) Would the training be mandatory for all employees?

With regard to the first of these, the Leadership Through Quality training had been largely designed by the Quality Training Task Force. The union had not been a part of this group and was concerned that it should have a say in the content of any training received by its members. Recognizing the seriousness of the union's concern, Xerox management agreed to create a steering committee in D&M composed of union officials, senior managers, Quality trainers and Organizational Effectiveness Specialists. Its job was to integrate the union into the training process. The solution involved a modification of the cascade process. Union officials were included in the senior management training sessions in Manufacturing. Additionally, Organizational Effectiveness Specialists assisted the Quality trainers in the delivery of all Leadership Through Quality training in the manufacturing side of the firm.

While Xerox compromised on the union's involvement in the LTQ training, the firm stood its ground on the issue of whether the training was to be mandatory for all employees. The union opposed mandatory training, largely on the grounds that "you

can't legislate participation" and such a position would compromise the union's independent status. Xerox argued that it had to be mandatory and that this training was no different than the product training that occurred when a new product was introduced. In those situations, there are "new tools to be used" and "hourly people who are going to work on (the new production) line are given training for how to work on that line, how to use the new tools..." This training is required and everyone recognized that it should be so. In the new production environment that Xerox was trying to create, "problem solving techniques and team skills are tools...intellectual tools perhaps, but...if (employees are) going to work in this environment, (they) need those tools, (the firm) has to train employees to use those tools, and that training should be mandatory." After a considerable amount of discussion, the union bought into the argument.

The Impact of LTQ On The Managerial Role Becomes Evident

As the LTQ training cascade progressed in D&M, a new and unexpected problem arose: managers did not understand what it meant to be a facilitator. The problem first came to light during one of the Quality Network meetings. A group of Quality Specialists came to Tom Kayser and said,

"God help us! Our managers don't have the foggiest idea how to be a facilitator of their family group when they're working these quality improvement projects. They do one of two things: They drive the project like they do everything else, automatically - 'We're gonna get this goddamned thing done in three weeks; here's the schedule and here's how we're gonna do it. You do this and you do that,

you report to me and bang, we're gonna get this thing over with.' Or they felt that facilitation meant that you couldn't get involved..that, as a manager, you couldn't open your mouth and say anything because you would be influencing them. So they (became) laissez-faire (managers)...The ones that were being driven, totally lost all faith in the tools and processes and said, 'This is no different than it has been around here for twenty years. What's new?... (this is just) the ice cream flavor of the month, because that philosophy we talked about in the classroom sure isn't happening here? (On the other hand,) the groups that weren't getting any direction (from their managers) were just spinning their wheels. (They said,) 'None of this stuff works...we're killing ourselves with the time we're spending in these meetings trying to utilize these tools.'"

Kayser offered to write a short pamphlet that explained the high points of facilitation. As he got into the project, however, he realized that there was a great deal that needed to be said if he was to truly help managers to become facilitators. He would need to produce a handbook, not a short pamphlet.

After nearly eight months of effort, he published Mining Group Gold, a manual that described the basics of group dynamics and facilitative intervention. His goal was to help managers to see that their role under Leadership Through Quality had grown. They now had to "wear two hats." On the one hand, they were still managers, with "duties and responsibilities that are set forth in their job description." They often still had to be directive to fulfill those requirements; they just "didn't have to be directive in every single thing (they) did. Not using their family group as a resource to solve problems, improve quality and make decisions was proving to be a major missed opportunity." His manual showed managers, in a step-by-step

fashion, how to shift between the directive component of their role and the new facilitative component.

The manual was an overwhelming success. So much so, that Kayser received many requests to design a short training program to help managers "talk through and practice" the principles of facilitation. Kayser built a two-day training program around some specially produced video exercises that displayed effective and ineffective facilitative behavior in a variety of situations. When he had completed his design, he planned a delivery schedule that had him offering the workshop twice a month for two years. He felt very strongly that only he should actually deliver the workshop, "to assure consistency in the messages I wanted to give."

The "Manager As Facilitator" program was first offered in June of 1985 to managers in Development and Manufacturing. When word of it got around, it quickly became evident that the only error Kayser had made was in his estimation of the need for the program. Requests for the training came from every division of Xerox, and from nearly every country in which Xerox had operations. Very quickly, Kayser found he had to train others to deliver the program - a fact which worried him, since he knew that the course was influencing the managerial culture of Xerox and he wanted that to be done with consistency. Over 20,000 Mining Group Gold manuals have been distributed, worldwide since 1985. It has been translated into Portugese, Spanish, French, Japanese, and German. As of September of 1990, when Kayser was

interviewed for this study, the facilitation skills workshop was still being offered to Xerox managers.

To Kayser, the success of the "Manager As Facilitator" workshop was, in hindsight, very understandable. Leadership Through Quality was about creating a collaborative Quality-oriented organization. It required group-centered problem solving and specified the analytical processes and structures that had to be employed to bring about that change in the organization. Leadership Through Quality did not, however, specify "how (one) gets managers (who) are used to (operating) in an authority system and pretty much being in control, to use these tools and processes in a collaborative way with their family groups." As he put it, "We thought if we gave them the tools, they would know how to use them."

The problem was not one that could be realistically resolved by creating an enlarged group of dedicated facilitators who would be "at the beck and call" of the family groups. The only practical way to create a collaborative organization was to give all the firm's managers the capability to facilitate group problem solving and quality improvement activities and, thereby, provide them with an active and positive role in the movement to total quality. The "Manager As Facilitator" workshop was a key resource to this end.

Changing The Infrastructure To Support LTO

The concept of a training cascade, together with the LUTI

technique, increased the length of time it took for all employees to be exposed to the mechanics of the Leadership Through Quality program. In D&M, which contained less than 20 percent of the Xerox workforce, the training cascade took over a year and a half to reach all employees. In the U.S. Marketing Group, which had a much larger number of employees, geographically located all across the country, the training was to take over four years to complete.

If training was a necessary requirement for changing the way Xerox employees handled their work, it was certainly not sufficient in itself to bring about that result. This fact was explicitly recognized in the LTQ implementation strategy. As we have noted, communication was given heavy emphasis, to help employees to understand the broader context for the quality program and to minimize any uncertainty they might feel about the intentions or implications of the program. Role modelling by senior managers was strongly encouraged to provide good examples of behavior and assure consistency between actions and words. And reward and recognition explicitly committed the firm to providing inducements for compliance with the program's principles. Each of these elements, however, required modifications and/or additions to many of the firm's human resource management practices. In the earliest days of Leadership Through Quality, this took the form of selecting processes or programs geared to the individual employee and "re-orienting them in ways that would be more supportive of and more consistent with what (was expect-

ed) of people's behavior." Later, it would involve the creation of several all new, group-centered processes and programs.

In the area of reward and recognition, the key objective was to convey to employees the value Xerox now placed on quality and to encourage them to make quality improvement an integral part of their job. Identifying how this should be accomplished was a gradual, trial and error process that continues to this day and involved changes in how employees are evaluated, promoted, compensated and recognized. In making these changes, however, the two major business areas of the firm - Development and Manufacturing and the U.S. Marketing Group - often took different paths.

Performance Appraisal:

One of the first systems to be altered under Leadership Through Quality was the process by which employees were evaluated. In Development and Manufacturing under Frank Pipp, the performance appraisal system had been changed from a five-box, forced distribution format to one with no summary rating categories, only a written evaluation of whether negotiated objectives had been met. This had been done to reduce competitiveness among employees and to encourage collaboration, goals eminently in line with the dictates of LTQ. The corporate staff had been using a no-box system for some time. The U.S. Marketing Group, however, had not changed its system. It had kept the five box format because it was felt to be more compatible with the type of work

(output more measurable, roles somewhat less interdependent) and with the type of people (somewhat more achievement-oriented and competitive) found in the group. It is not surprising, therefore, that the most significant changes to the evaluation system under LTQ were initiated in the Marketing area.

The changes involved both the goals of work in the unit and the criteria by which success would be determined. With regard to the first of these, the objectives setting process in Marketing was modified to require all employees to "have objectives related to quality and to the improvement of their work processes." Every manager was to develop an understanding and command of the LTQ statistical tools and analytical processes and encourage their application by all employees to their unit's performance.

The second change modified the summary rating scale found at the end of the performance evaluation forms. That scale was re-oriented around "levels of achievement in meeting customer requirements," reflecting the fundamental LTQ principle that quality was ultimately defined by the customer. "Meeting objectives" was no longer to be the key criteria for success, "satisfying customer needs" was now the primary focus of performance in the Marketing Group.

Promotional Practices and the Concept of the Role Model Manager:

An even more powerful statement of Xerox's commitment to quality was made when the promotional practices of the firm were

modified in the late 1980's. For years, Xerox had used a sophisticated succession planning process called MRP, Management Resource Planning, to assure the orderly development and deployment of managerial talent. The MRP program required managers above a certain grade level to identify replacement candidates for key positions in their organization, "to look at their organization's bench strength" in light of future business goals and initiatives. Under the program, managers were required to meet with their subordinates annually and discuss the subordinate's career goals and the types of jobs the subordinate might be eligible for, as well as the skills needed for advancement to those jobs.

Leadership Through Quality placed a new set of requirements on the firm and its leaders. The corporate senior management recognized that these new requirements would have to be formally incorporated into the firm's promotional practices else they would not be taken seriously. Hal Tragash was given the task of "recodifying the trait characteristics for the evaluation of upward potential and mobility of managers."

Tragash and his colleagues on the corporate Human Resources staff began this enterprise by examining some benchmark data on managerial behavior in other firms that emphasized quality, including the Japanese. They recognized, however, that ultimately their delineation of appropriate managerial behavior had to be derived from the specific business needs of Xerox, the requirements of Leadership Through Quality and the firm's unique culture. Working closely with corporate senior management, espe-

cially David Kearns, Paul Allaire (Xerox's President) and Norman Rickard (VP for benchmarking), and various quality officers they brainstormed a profile of what was to become known as the "role model manager."

The profile they developed ultimately addressed performance in business results, Leadership Through Quality, human resource management, teamwork and corporate values. Work sheets were developed which described the specific behaviors that were to be looked for when rating performance in each area. For each area of performance, three rating categories were defined: role model (person serves as a standard of excellence worthy of imitation); competent (person is qualified, capable and demonstrates satisfactory performance); and development required (person does not consistently use the required processes or behaviors, and requires additional support or development). When the new MRP system was first put in place in the mid-1980's, managerial candidates for promotion were required to have a "role-model" rating in at least three of the five rating areas. With time, "role-model" ratings were looked for in all five areas.

What is particularly noteworthy about the role-model trait characteristics is that they were neither static in content nor equally emphasized in practice. With regard to content, the behavioral descriptions of a role model manager became much more specific as the firm came to better understand the internal dynamics of a quality-driven organization. To some extent, this was a matter of shifting from general statements of how managers

should "support their people" or "assure that people receive the training necessary to start living quality" to more detailed and demanding statements (i.e. "personally uses, and encourages others to use, the process tools including Problem Solving, the Quality Improvement Process, Competitive Benchmarking and Cost of Quality in all key decisions.")

In a telling vignette, Tragash described how the evolution of the role model trait characteristics "came about accidentally, as much as by plan." With the reductions in force of the early 1980's and the corporate emphasis on employee involvement in problem solving, managers throughout the organization were forced to shift decision making authority deeper in the organization. The manufacturing and service parts of the firm were particularly fertile areas for this activity. In part because "these are the people who really do concrete things; you can see and touch and measure very visibly what they're doing."

As Tragash and his colleagues scanned the internal environment to better understand managerial behavior in the world they were creating, they "stumbled across a team in Oklahoma that had several semi-autonomous tech rep (technical representative) teams and a very skillful field service manager who was really modeling the role of the facilitator-coach (in a) multi-team environment." They interviewed the manager, named Thomas Andrews, and his people about how the teams functioned and the manager's role in helping them to perform. What clearly emerged was the notion that semi-autonomous groups have a strong expectation that their

manager be a skillful teacher, that he/she be able to coach group members on the use of analytical tools and help them to better understand the larger business context in which they were operating. This was a valuable insight that expanded corporate understanding of the new managerial role. Tragash summarizes this evolutionary learning process well: "I've found, over the years...you plan a campaign, and then you hit the beach and (find) there's something on the beach you didn't plan for. But somebody figured out how to get around it. (So you look at what they did, and) you change your plan. You're always fighting the last war. Same thing here. Someone on the beach figured out they had to be a teacher...You learn from what's happening out there."

In addition to changing the content of the trait characteristics over time, the firm also placed greater emphasis on certain behaviors at given points in time when the MRP forms were being filled out. This differential emphasis reflected particular internal needs that had become evident either because of recent performance shortfalls or new strategic initiatives. As an example, in the 1990 MRP forms managers are advised that: "A key consideration for 1990 is Employee Development. To be considered a 'Role Model' an individual must excel in this area before other factors are taken into consideration."

When the MRP process changes were introduced in the late 1980's, it sent a powerful signal to managers about the importance of Leadership Through Quality. Competence in the LTQ

processes and techniques was clearly required of all managers. And those expected to move ahead in the organization had a "gauntlet" thrown down in front of them: either become an expert practitioner of the principles of Leadership Through Quality or face career limitations.

Compensation Practices:

While administration of the rules for career advancement is a powerful vehicle of cultural transformation, it has the disadvantage of being a longer term mechanism for rewarding appropriate behavior. Compensation practices, on the other hand, offer a more immediate lever to induce change. Recognizing this, Xerox made several modifications to its compensation systems to support the LTQ implementation.

The first of these involved the firm's merit review and reward process. Historically, Xerox had employed a merit delivery system that was tied to the firm's performance appraisal cycle. All employees were on a common review date and merit salary increases were given out in March, with the amount of increase determined by the individual's performance and the centrally determined merit increase budget for that year.

Around the time the performance appraisal system in Development and Manufacturing was being altered to the "no-box" format, the decision was also made to modify the merit delivery process throughout the firm. The old system provided managers with only one variable to manipulate when rewarding performance:

amount of increase. The new system added another: timing of the increase. Under the new system, managers could now vary the amount of reward and the length of time between consecutive merit increases from as little as nine months to a maximum of two years. This was a significant change in compensation philosophy for Xerox.

When this modification was put in place, (in 1986 for senior executives, 1987 for the rest of the salaried exempt population) Leadership Through Quality was not the primary factor driving the change. Of foremost importance was a desire to increase the equity of the compensation system. The merit delivery system was supposed to distribute increases in such a way that the highest performers got the most money. In fact, however, the actual distribution of percentage increases was rather narrow. For example, if the merit increase plan called for a compensation increase of five percent, on average, for the entire workforce, over 90 percent of all employees would typically get raises of between four and six percent, a range that did not provide a strong inducement to excel. By giving managers the capability of giving raises more frequently, it was hoped the overall dispersion would increase.

A second factor driving the merit system modifications was a desire to change employees' expectations about their raises. In the past, employees expected increases that were solely in proportion to the quality of their performance over the past year. Few considered how well they were paid, in general, either

in terms of overall level or location within a salary range. It was hoped that by adding time between increases as a criterion, managers could help employees to focus more on their relative value to the company and the long-term picture of their career and compensation progression, and not simply on last year's performance rewards.

In principle, the changes to the merit delivery system had the potential to help induce short term behavioral change compatible with Leadership Through Quality. Employees who performed acceptably could now be rewarded more frequently, thus reinforcing positive behavior. In practice, however, the new system has not been popular with the line organization. It has proven to be difficult for managers to explain and, more important, to administer. As one compensation specialist put it, "...to be very honest with you, I think it's probably more of a negative than a positive (up to now), although I think it has the potential to be a positive when we get to use it better..."

Perhaps the most strikingly direct example of compensation practices being used to reinforce Leadership Through Quality can be found in the U.S. Marketing Group. As we have noted, a fundamental principle of LTQ is the notion that quality is meeting the requirements of the customer. In the Marketing area, this principle has been formalized by structural changes and supporting compensation programs that tie the compensation of influential managers to the performance of their units in meeting customer expectations.

The need for these changes was made evident, in part, through monthly surveys of customers that assesses how their dealings with Xerox have gone. Customers are asked to rate such things as product performance, service responsiveness and the behavior of sales personnel. At the end of the survey, there is a global question about overall customer satisfaction.

Xerox closely tracks the results of this survey, particularly the global question. In the mid-1980's, when LTQ was first initiated, it was not unusual to find that only about 70-75 percent of Xerox customers rated its performance as satisfactory. As LTQ took root in the firm, these numbers began to steadily climb upward, although not as quickly as management might have desired.

Analysis of customer complaints indicated that a significant barrier to satisfying customer requirements was the strong functional orientation of the marketing organization. The field operations of the U.S. Marketing Group are geographically divided into 65 Districts, with three primary functions in each District: sales, service and business operations. Before Leadership Through Quality, each of these functional areas operated somewhat independently of the others. Within such an organization "...all of the dependencies (were) vertical and functional, all of the peer (interactions), mentoring (activities) and non-formal (aspects of organizational life were) functional and vertical..." As a result, the different functional areas were very ethnocentric in pursuit of business goals and not well-coordinated in

dealing with the customer. Indeed, the firm was getting feedback that suggested their customers felt as though "they were dealing with different entities at Xerox who didn't seem to be talking to each other."

To meet this problem, the Marketing Group made several radical structural and procedural changes to its field operations. The changes reflected a strategic decision that District operations were "the center of (Xerox's) business and everyone in a given District should be focused on satisfying the needs of customers in the District."

From a structural perspective, this was accomplished first by changing how accountability for performance would be defined. Under the old system of accountability, the District Managers of sales, service and business operations were each held accountable for maximizing a set of functional performance measures for their area of responsibility. The new system required the three functional managers in a District to become a "Partnership" with shared accountability for "common goals" in the District. The common goals dealt with both customer satisfaction and major business results. In essence, the District became a small business, managed jointly by three managers.

To allow managers the freedom to truly manage the District as a business, the firm devised a set of "empowerments" - permission to use new ways of approaching work - that could be employed by District Managers to improve results. The intention behind this action was that successive levels of the organization -

headquarters, the Regions (groupings of Districts), the Districts - would each allow greater flexibility and autonomy to those below. It was hoped that through such action the District Managers would recognize "that they shouldn't be just looking up and waiting for orders as to what should be happening, that they should take responsibility (for making things happen)." District Managers were encouraged to develop a vision for their District and implement it.

To test the "Partnership" concept, the Marketing Group chose six Districts to be pilot sites. The Districts were carefully selected to be sure they had "the kind of marketing territories and leadership" that would be supportive of this concept.

The pilot results showed that the new accountability structure helped enormously to focus the organization on the customer's needs. It was also clear, however, that the new structure would be difficult for managers to get used to. Empowerment was not simply a matter of telling managers that they could now do certain things or take more risks. These things would happen only after managers became convinced that "if you go do it, you won't be shot at dawn." For such confidence to grow, it was necessary that managers at the Regional level hand off power to the Districts, allow them the freedom to experiment and, most of all, not take a functional view of business issues. This was difficult for them to do during the pilot and remains so to this day. Managers in the Regional offices suspected that the

Partnership strategy obviated the need for the Regions. This fear was and is compounded by the fact that no clear role for the Regions has been specified to date. Regional Managers were told: "We want involved Districts. Your job is to coach and nurture empowered District Partners. Help these people become as autonomous as possible as business people, and then we'll figure out what to do with you. (This) was not the most comforting scenario if you're (confronted with radical change and are being asked to commit to it)." Russ Chappell, a training manager in the Marketing Group who was heavily involved in the implementation of the Partnership strategy, feels this conflict was inevitable. "We basically saw the Region as a temporary necessity, but the problem (was) we acted like that was so (and thus) we got mixed compliance and mixed execution from the Region."

The Partnership concept was formally rolled out into the Marketing Group in 1987. In looking back on the process, Chappell has observed that Partnership "was, for us here in Marketing, probably a more profound transformation that was Leadership Through Quality. (We were mindful) of the fact that it was a culture change, but we didn't put the kind of resources and strategic planning behind it..that we did for Leadership Through Quality...(Even with that implementation weakness,) people said, this is right! (We) should have done this a long time ago. The essential rightness of the (strategy) kind of overrode whatever inelegance we (displayed) in launching it. It was better than we were."

To support the Partnership strategy and to encourage continuous movement toward the firm's avowed goal of 100 percent customer satisfaction, the Marketing Group made some significant modifications to its compensation programs. First among these was the creation of a bonus program for key managers that tied compensation to the customer satisfaction targets of their unit, with customer satisfaction measured through the monthly survey described above. The actual amount of the bonus was determined by performance against business results, such as profit and revenue growth. However, access to the bonus was tied to performance against the customer satisfaction target. Thus, a manager could perform very well against business goals, but not receive a bonus because the customer satisfaction rating of his/her unit was too low. To add an additional inducement for performance, the program put up to 20 percent of the manager's base salary at risk. On the up side, however, if performance goals were exceeded, managers could earn back as much as 40 percent of base salary through the bonus.

In implementing the bonus program, the Marketing Group took care to protect managers from being unfairly penalized by systemic weaknesses in the firm that acted to limit performance. Money was very important to these managers, they knew their value in the employment market and they would vote with their feet if they felt they were not being treated equitably. Thus, the compensation group in Marketing carefully tracked managerial performance against bonus potential on a quarterly basis so that systemic

inhibitors to performance, or issues that had not been taken into account in designing the bonus program, could be identified. In cases where such problems arose, the firm adjusted the compensation plan or provided for an alternate means of paying for performance so that managers were not unnecessarily vulnerable.

An important serendipitous result of a bonus program of this type was that it increased managerial sensitivity to structural or systemic inhibitors to satisfying customer needs. William Strusz, manager of compensation for the Marketing Group puts this well: "...its axiomatic. You put people's pay and recognition at risk, they're going to tell you what the barriers are to their achieving them..." Thus, the administration of the bonus program became an important vehicle for the organization to learn about itself and to modify internal dynamics. This happened two ways. First, there was a greater flow of information upward about operational difficulties. Senior management was, therefore, better informed and could take action more effectively. Second, managers out in the field were encouraged to look at their operation more critically and, thus, could more precisely guide their employees' application of the Quality Improvement and Problem Solving Processes.

The bonus program impacted all managerial personnel in the Districts. The District Partners had the largest amount of salary at risk, but stood to gain a very large reward if performance was good. Managers who reported to the Partners had less at risk and received commensurately less reward.

From a psychological perspective, sales managers were least impacted, as they had been under a bonus system for some time. The same could not be said for service and administrative managers. They had always been compensated with a straight salary and the spectre of having some of their salary at risk was quite upsetting. For that reason, the amount of buy-in required of second level managers was and continues to be a subject of considerable study and experimentation.

In addition to these changes to managerial compensation, the Marketing Group also altered the system used to pay first level employees - those with direct customer contact. In 1989, these employees were put under a modest gainsharing program that offered them rewards beyond their base compensation. The program did not employ an intricate formula like those typically found in sophisticated gainsharing programs. It was simply designed to focus employees on the common goals of their District and to encourage District-level performance improvement. On a quarterly basis, District profitability and performance against common goals is measured against performance during a comparable period in the previous year. If sufficient improvements have occurred, and customer satisfaction targets have been met (as a qualifier) then the program channels money back to the employees in the District. On a bottom-line basis, the program allows employees to potentially earn a modest compensation increase - (10 percent of all gains are shared) about one or two percent of their base salary per year. In the words of Compensation Manager William

Strusz, "It's not big enough to make people say 'Wow, I'm getting rich!' But it's big enough for them to pay attention to what the (common) goals are and (to track) how we're doing against them. (This, hopefully, will then lead them to ask) what (they) can do to make things work better."

The gainsharing program has not proven to be easy to implement. Special systems had to be created to measure results and to pay out rewards, and these are still being fine-tuned. Some Districts have been reluctant to implement the system because it "conflicted with other things they were doing."

The Service area was, perhaps, the greatest source of opposition to the program. Service, under Vice President Charles Ray, had historically been one of the most innovative parts of Xerox. In the late 1970's and early 1980's, when Development and Manufacturing was experimenting with QWL activities, Service was also exploring the feasibility of involving employees more heavily in the design and control of their own work. Ray and his colleagues in Service had recognized that geographically assigned service technical representatives provided a "natural community" of workers who could solve problems and seek work process improvements. These employees were formalized into Service Work Teams that, to varying degrees, assessed the service needs in their area, planned for resource allocation against needs and coordinated the delivery of needed services.

The structure proved quite successful and to support it Service designed a gainsharing program, known as PROSHARE, to

encourage improvement in service performance measures, such as service expense to revenue ratio. This system had been in place for several years when the Partnership-related gainsharing program was implemented and as a result, the new program was not well-received in Service. With the new program, compensation adjustments for Service personnel were no longer going to be made on the basis of performance against narrow, service-oriented functional measures that were clearly under the control of the Service Work Teams. They would be tied to broader common goals which were a shared responsibility of all in the District, not just the Service Tech Reps. With the move to a cross-functional orientation, however, no other system was deemed feasible and the Service Teams have been forced to accommodate.

Recognition:

In the Leadership Through Quality implementation strategy, defined in the Green Book, Xerox explicitly distinguished between reward and recognition as levers for inducing change within the organization. Both were seen as significant contributors and the strategy document called for an evaluation of all reward and recognition systems and practices for compatibility with the objectives of the Quality program. That assessment indicated that while Xerox had numerous recognition programs in its operating units, they were designed to acknowledge individual not group performance. This was clearly problematic, as group-level analysis of internal operations was the core of the Quality

Improvement Process.

Having individual-level reward and recognition systems in a group-centered world had been shown to be awkward during the early days of the QWL program. As previously noted, in some manufacturing units, problem solving groups had availed themselves of the unit's suggestion system as a way to receive recognition and reward for innovative, cost saving ideas. Such systems had been created as a vehicle for improvement ideas to flow upward from the non-salaried workforce. Managerial and, in some cases, salaried professional personnel were not eligible to participate in the suggestion system. However, many of the QWL problem solving groups had managerial, supervisory or technical specialists as members. In these cases, teams seeking monetary reward would often submit suggestions under the name of one of the non-salaried members and, if an award was given to that person, he/she would share it with the other group members. Such actions were clearly contrary to policy and led to controversy. Although the firm often turned a blind eye to the problem in the short run, it led to suggestion systems becoming gradually discredited in many areas in the firm. Only recently has Xerox begun to re-emphasize such systems, as benchmarking has shown them to be an important contributor to continuous improvement.

To address the issue of group performance recognition, Xerox created a team-centered award program that paralleled the system it had in place to recognize individuals. Individual recognition activities ranged in magnitude from simple thank

you's, plaques and modest gifts to the President's Award, given annually to carefully selected employees who had made especially noteworthy contributions to corporate performance. The President's Award carried with it a monetary award of up to 50 percent of salary.

The team-centered program is called Team Excellence and was born in Development and Manufacturing in late 1984. Tom McMullen, Tom Kayser, Nick Argona and the D&M Quality Network, impressed with the success of Teamwork Day, conceived the idea of formally recognizing the best of the D&M teams. They wanted to provide some special recognition for the few truly outstanding teams by giving them a chance to tell their success stories directly to the senior staff of D&M. Like so many other aspects of Leadership Through Quality, the Team Excellence process went through a number of refinements and has been implemented somewhat differently in different Business Units.

Team Excellence has two basic elements: a certification program and a performance competition. To take part in the program, a group of employees must first establish itself as a team. A team can be any group of three or more Xerox employees who "share clearly understood goals; work together to achieve those goals; use a disciplined, structured approach to problem-solving; and achieve results which are valuable to Xerox." In most Business Units, to be certified as an Excellent Team the group must submit itself for evaluation by a facilitator, manager or team sponsor. Early on, teams were rated on a scale of zero

to five in five performance categories: 1) team integrity (members know and behave in a way that shows they are committed to team goals and these goals reach beyond the immediate work area and clearly contribute to the broader organizational objectives of increase market share and improved return on assets); 2) process discipline (members assiduously apply the Problem-Solving Process, the Quality Improvement Process or other analytical tools in their work together); 3) results (the problem solution suggested by the team must be implemented and should lead to verifiable improvements in organizational performance); 4) innovation (the team challenges accepted ways of doing things and shows creativity in developing problem solutions); and 5) team development (members are open to the development of new interpersonal and analytical skills, help each other to grow in proficiency and develop a bond of mutual trust and respect). To be certified as an Excellent Team, the group must receive a score of at least "4" in all five rating categories. In recent years, only three rating categories have been used: results, innovation and teamwork. These categories are weighted differentially, with "results" accounting for 70 percent of the evaluation, "innovation" 15 percent, and "teamwork" 15 percent.

Once a team has been certified as Excellent, it can be nominated to enter the competitive phase of the Team Excellence Program. Within Business Units, teams so nominated compete against each other to be named one of the outstanding teams in the Unit. In the early years of the program, the competing

groups were required to make a presentation to an evaluation team from the Business Unit, usually composed of the Business Unit head and his/her direct reports. Presentations were limited in length, as was the time devoted to questions and answers. The evaluative criteria used were the same five used for Excellence certification; however, they were differentially weighted depending on the performance needs of the organization, with process getting more emphasis at one time, results at another.

Business Units were given quotas for the number of outstanding teams they could name, with the winners moving on to a company-wide competition, held in Leesburg, Virginia at the Xerox Training Center. There competing teams presented to corporate senior management with seven teams chosen as winners. Winning team members in the Business Unit competition each received a plaque and a one thousand dollar award. Teams awarded the Team Excellence Award in Leesburg received an elaborate personal momento and each team split a monetary award of up to \$25,000. Additionally, teams that made it to Leesburg had the opportunity to take part in some special developmental programs and social activities in Washington, D.C. and, most important, could interact with the senior executives of the firm.

The recognition program was not without its flaws. Most important among these was the competitive nature of the Leesburg part of the program. The size of the monetary award at stake led teams to go to great lengths to outdo each other in the elaborateness of their presentations. Since teamwork was what the

whole program was supposed to be celebrating, this competition was at a minimum unseemly and at worst completely incompatible with the basic philosophy of Leadership Through Quality. To reduce the competitiveness, the monetary award was dropped in favor of a gift to each winning team member. In the latest iteration of the award, even the gift has been dropped. Now, the benefit to those presenting at Leesburg comes from their increased visibility to the senior leaders of the firm, their social interaction with members of other excellent teams and the recognition of the Award trip.

Another concern that arose as the Team Excellence Program was implemented was the question of bias in the evaluation process. Were the teams that made the most significant contribution and showed the greatest expertise getting the Award, or was the Award going to those that made the best presentation?

To address this concern, some units in Xerox now use a peer review process to evaluate team performance. In each of the last two years, a quality evaluation committee, made up of non-managerial employees, interviews each of the teams about what the team actually did to address its problem. Avowed team performance results are tested against actual customer perceptions and feedback is given to the team about how their customers really see them. This peer reviews data is then channelled upward for use in the Team Excellence evaluation, with the committee making recommendations to management about the teams that should really be in the competition.

Increasing The Pace Of Change Through A Personal Contracting Strategy

By mid-1986, the training cascade had thrust Leadership Through Quality deep into the Xerox organization. In Development and Manufacturing virtually everyone had been exposed to the quality principles and processes. Marketing would still require more time to touch everyone because of the large number and geographic spread of its employees.

As senior management examined the pace of change within the firm, however, it was becoming evident that simple exposure to training was not alone going to bring about the commitment of some employees to the quality principles. Some influential managers still did not think the firm was serious about quality. Others did not like the program because it challenged their managerial prerogatives. Finally, some thought that since David Kearns, the strongest advocate for LTQ, was moving away from operational involvement in day-to-day matters, the program would fade away.

Paul Allaire, the President of Xerox at that time, recognized that the pace of the implementation would increase only if everyone realized that Allaire was as committed to LTQ as was Kearns. To bring this about he devised a personal contracting strategy. As part of the annual objectives setting process, he met individually with what he felt were the key opinion makers in the business to discuss how important LTQ was to the future of the firm. Each of these influential managers was asked for his/her support for the quality program. That support was to be

expressed in a set of explicit commitments defining precisely what each of them would do to promulgate the program. Once such support was defined, each of these managers held similar sessions with influential managers below them in the organization. Through this strategy, the key 100 managers in the corporation were linked to Leadership Through Quality through a series of interlocking personal commitments that defined their level of support for the program. With such commitment by the major "culture carriers" of the organization, the inevitability of the quality program became increasingly evident to all and the pace of transformation increased. By 1988, the firm was ready to try for the Baldrige Award.

III. SOME LESSONS FROM THE XEROX TRANSFORMATION

The preceding narrative has been constructed to reflect the range of activities that were undertaken by Xerox employees in pursuit of corporate renewal. Its broad goal has been to take the process of organizational transformation out of the antiseptic realm of corporate strategy and to depict it as a social process, with human actors. In doing so, it has attempted to highlight the "people" issues that arise in such change efforts and to explore the role of the Human Resources function in providing "levers" to promote and advance the goal of organizational transformation. Given the size and complexity of Xerox, it is inevitable that important events have not found their way into the story. Our hope, however, is that the narrative captures the essential flavor of the change process in such a way that the lessons of Xerox can be applied by others seeking organizational improvement. In this section of the report, we would like to illuminate some of the key policy lessons suggested by the Xerox experience.

Develop A Vision To Guide Renewal

Students of large-scale organizational change have often observed that successful change efforts are generally guided by a captivating "vision of the future". At times such a vision comes from the creative insight of a dynamic leader. At other times, it grows out of a rigorous participative process of

organizational self-analysis that takes account of both internal capacities and environmental realities. Whatever its source, if clearly articulated it acts to galvanize the attention of organizational members and becomes a shared aspiration for what the organization can become.

In Xerox's case, it seems clear that the firm's vision of what would be required for competitive success was neither the product of one person's imagination, nor the result of a formal strategic planning process. Instead, the recognition that change would be necessary and the defining parameters of such change evolved over a period of years, with contributions coming from employees at all levels of the organizational hierarchy.

Stresses in the technical system of the organization - how Xerox actually created and marketed its products - were the driving factors in providing an impetus for change. Such performance shortfalls became evident as selected employees looked outward to other organizations and compared Xerox's methods and results to those found elsewhere.

At the highest levels of Xerox, a very important factor in changing the self-satisfied, ethnocentric orientation of the firm was the model of organizational performance provided by Fuji Xerox. Here was an organization that was very similar to its parent, yet in many respects was ahead of it on the performance curve. The competitive dynamics of the Japanese copier market were clearly suggestive of what could happen in the United States. Fuji Xerox's performance weaknesses, erosion of market

position and subsequent renewal by orienting itself around quality were tracked closely by Xerox senior executives, particularly David Kearns. Benchmarking trips to Japan, arranged by Fuji Xerox provided information that challenged assumptions about how the business should be approached and suggested alternative strategies.

The existence of such a tangible model helped to change the context of corporate self-evaluation and undoubtedly helped senior executives to accept and act on the critical evaluation of the firm undertaken by the management consulting firm, McKinsey & Company. It also led to a curiosity about employee participation and a willingness to experiment with the concept and provided a fundamental design template for Leadership Through Quality. While speculation can be dangerous, it is reasonable to reflect on whether Xerox would have been moved to action as expeditiously without this influential internal model for success.

Assign Someone To Develop The Vision

Employee participation was the first major element of what was to become the new Xerox to be formally put into place. A significant factor in the institutionalization of this concept in the firm was the creation of a corporate staff position to oversee its implementation. Hal Tragash, the first role occupant, in essence became the physical manifestation of senior management's commitment to the concept. While grass roots experimentation with participation had been going on for several

years, Tragash became a catalyst for action, pulling together this disparate experimentation and imparting institutional legitimacy to it. As an ombudsman for participation he educated senior management about the range of participative activities that could be implemented; helped to plan additional experiments with it; intervened to remove political roadblocks or to facilitate high-level decision making around the concept; and provided visibility to participation by channelling information about its successes, and implementation difficulties, upward to the highest levels of the corporation. Through such activities, Tragash became an important facilitator of organizational learning, assuring that grass roots experience became an important contributor to high level strategy formulation.

Use High-level Champions To Unfreeze The Culture

The organizational change literature contains numerous references to the impact of champions on the change process. These are individuals who look critically at the organization, identify what has to be different, and assiduously advocate the new over the old. Xerox certainly had such individuals. David Kearns, Frank Pipp, Dominick Argona, Tom Kayser and John Foley are five who come readily to mind as being willing to both take a risk on a new idea and allocate resources to bring it into the organization.

Less frequently discussed is the use of strategic appointments to facilitate change, although this too is quite

common in organizational life. Xerox used this technique with the appointment of Frank Pipp to head up the Development and Manufacturing organization in the early 1980's. Pipp was a strong believer in employee participation and clearly recognized the negative impact of the bureaucratic and political managerial culture on Xerox performance. As a highly experienced and respected manager, he was ideally suited to the task of forcing the organization to confront its basic assumptions about how it should operate. Nearing retirement, he could confront internal matters directly - could, so to speak, "rattle the organization's cage" - without worry that his career would be at risk. And with a sensitivity to the symbolic side of management, he became an influential and uncompromising model of managerial excellence in both word and deed.

Encourage Union Involvement in All Phases of Transformation

A factor that had a very positive impact on the turnaround of Xerox's business fortunes was the cooperative industrial relations climate in the firm. The Amalgamated Clothing and Textile Workers Union had a very enlightened leadership that had learned a powerful lesson when the textile industry had died in Rochester. Seeing this industry move offshore to low cost labor markets, they well understood how the fundamental economics of an industry could change and they did not want to see something similar happen to Xerox.

The union leadership's ability to cooperate with Xerox on

corporate renewal was encouraged enormously by the company's willingness to bring them into the renewal process at the beginning. Senior ACTWU leadership met frequently with senior corporate executives to examine corporate performance and discuss and plan for improvement. This high level dialogue, with its spirit of openness and shared concern, set a tone within the organization that allowed the difficult, painful structural changes to the way work was organized and staffed to be accomplished as expeditiously as possible.

In the area of employee participation, this spirit of cooperation was made tangible by the joint structure that was put in place to manage its implementation. This intricate hierarchical structure of committees gave the union a strong hand to influence participative activities and, by doing so, to protect its interests and the interests of its members. Indeed, time and again in our discussions with both union and management personnel at Xerox, it was suggested that the ultimate success of employee participation within the firm was due to the union's advocacy and protection of the concept.

While Xerox made the right moves by involving the union in the design and implementation of both employee participation and the downsizing effort of the early 1980's, they erred seriously by not doing so for the Leadership Through Quality program. Not doing so made LTQ a "management-driven" program and raised fears at the lower levels of the firm that the Quality program was somehow supplanting the participation program. The union was

shocked that management would unilaterally create a program that subsumed employee participation without consulting it. The ensuing turmoil led to the needless expenditure of emotional energy by union employees and QWL facilitators, alienated union leadership, clearly slowed the Leadership Through Quality Implementation in the manufacturing area and has led David Kearns, Xerox's Chairman, to comment that excluding the union was one of the worst decisions he has made.

Manage the Context of Change

The process of large-scale organizational change is unsettling to many members of an organization. Such change disrupts established patterns. Assumptions and beliefs about the nature of the enterprise are brought into question; behaviors that were once functional, are no longer acceptable. Learning the new and un-learning the old become central concerns each day.

An important component of implementing such change effectively is managing the larger context of the change. This is a matter of helping people who must live with the consequences of a large-scale change to understand the reasons why such change is necessary. Openly sharing information about organizational performance is a minimal requirement, if this is to be accomplished.

Xerox recognized this fact very early in its renewal efforts. Competitive data gathered by senior executives on their trips to Japan had had a powerful impact on how they saw their

organization. When shared with senior union officials it built a strong case for experimentation with employee participation and clearly pointed to the need for significant change in the corporation's cost base. Recognizing that such competitive disparities would require a significant reduction in force, the firm created, with the help of the ACTWU, a sophisticated communications strategy ("The Choice Is Ours") to educate the work force about Xerox's position in the marketplace. While the message was not popular, its comprehensiveness and the candor of its presentation helped employees to see the corporation through "new eyes" and was, perhaps, the key factor influencing acceptance of the 1983 contract.

Create a Cadre of Dedicated Internal Change Agents

The grass roots involvement of Xerox employees in the analysis and modification of its internal activities has been a fundamental contributor to the turn-around of Xerox's business fortunes. Bringing about such involvement, however, was not a simple matter. In both the QWL program and Leadership Through Quality, employee participation was a group-centered activity. For many employees, meeting with colleagues to analyze problems and develop solutions was an entirely new activity that required analytical and interpersonal skills that had not been needed in the Xerox of old.

To train employees in these skills, to help small working groups to understand the intricacies of group dynamics and to

facilitate the shift away from a hierarchical, management dominated culture, Xerox created a cadre of dedicated internal change agents. In the earliest days of the corporate renewal, whether in the unionized manufacturing operations or in the non-union parts of the firm, such employees were generally characterized as trainers who had some responsibility for helping employees to actually use new concepts. The employees selected for this role, however, were chosen in part for their strong commitment to the philosophy of employee participation. With such strong belief in what they were doing, many came to act out a broader role for themselves. They became advocates for participation and frequently appeared to be the conscience of the participative process. This often brought them into conflict with managers who resisted or undercut participative activities, because they did not really understand the benefits of such activities, did not believe in them or were threatened by them.

The difficulty of the internal change agent role was compounded by the lack of clarity in the definition of the role. Were these employees to be only trainers for the problem solving teams or were they to be consultants to the larger organization to which they were assigned, helping both employees and managers to master the skills and interactive style required of a participative world? What was to be their relationship to the top line manager in their area? Should they report to this manager directly, or to a centralized personnel function? Were line managers required to use these change agents in specific

ways as resources to help them manage their responsibilities more effectively? If so, did they even know how to do so? Did this role fill a temporary need within the organization during a time of transition, or was this a professional function that was to become a necessary and vital concomitant to the internal dynamics of the new Xerox?

Xerox struggled with these and many other questions around the internal change agent role during both the QWL program and Leadership Through Quality. Some issues were resolved, others remain open to this day. Among the important lessons learned by the corporation were:

- o In the early stages of a renewal effort, a group of dedicated internal change agents provides visible evidence to employees that the firm intends to function in a different way.
- o Within the unionized parts of the firm, change agents with union backgrounds provide a credible communication bridge between union and management, are a powerful vehicle for conveying the message of change deep into the organization, and are better able to relate training materials to the real world experiences of the shop floor.
- o Again within the unionized parts of the firm, the implementation of employee participation is enhanced when internal change agents are functionally co-managed by a high level union official and an upper mid-level manager. At a macro-level, this creates a system of checks and balances that assures that the basic tenets of participation are honored in both spirit and fact. At the micro-level, the power of the internal change agents is enhanced by their reporting relationship to a high level union official not directly subject to managerial influence.
- o When internal change agents report directly to line management in an operating area, with only a dotted-line relationship to the Personnel function, concern over how they may be evaluated and rewarded by their boss may lead them to be less assertive in addressing problems resulting from managerial behavior that is inconsistent with participation or quality improvement.

- o On the other hand, when internal change agents report directly to the Personnel function, they may be less influential because they are perceived to be focused on issues peripheral to the core mission of the organization.
- o Internal change agents must be well-schooled in the fundamental business operations of the area in which they are operating.
- o Define the internal change agent's role as that of a consultant, with responsibility for assisting in the continuous evaluation of all aspects of the workplace relevant to the core change dimension, whether it be quality, participation or some other. Additionally, make them responsible for assisting with the implementation of necessary modifications to the firm's production environment. Provide change agents with training in consulting skills and the dynamics of organizational change to increase their effectiveness when dealing with the higher levels of the firm.
- o Change agents will be most successful when they are integrated into the management system of the organization to which they are assigned. This is most likely to happen when the line manager of that area and the change agent jointly define an operating role for the change agent that compliments the manager's approach to his/her own job.
- o The notion that employees can profitably serve as change agents for a limited period of time and then return to their old job is not realistic. Effectiveness in the role requires a great deal of new knowledge and skill and considerable hands-on experience. Such effectiveness also requires a relationship of trust between organizational members and the change agent. These take time to develop. If the tenure in the role is too short, change agents leave just as they are becoming truly effective.
- o Recognize that a cadre of internal change agents shifts day-to-day responsibility for implementation of the vision away from line management. To that extent, such change agents may act to reduce the pressure on managers to learn new skills and actively support the new internal environment.

Create Mechanisms For Information Sharing, Learning and Catharsis

Xerox is a very large organization, with great diversity in its internal environment. Such diversity in internal characteristics has caused the process of change to take

different forms and to proceed at a different pace in the various parts of the organization. The renewal effort was lent coherence and organizational learning was greatly enhanced by the creation of internal forums for the sharing of information and experience. Some of these forums were formal, like the Organizational Effectiveness Network for internal change agents. Others were informal, like the "rap sessions" for plant managers in manufacturing. Whatever their form, such activities facilitated the flow of innovation throughout the organization. Equally important, they provided a mechanism for emotional catharsis, in which employees attempting to facilitate or manage organizational change could discuss their frustrations and seek solace and support from colleagues.

Create Opportunities For Different "World Views" To Interact

Early in the renewal effort at Xerox, Dominick Argona, one of the human resource professionals taking a lead role in formulating approaches to the design of work and in facilitating experimentation with these approaches, was given managerial responsibility for a group of behavioral scientists working on the firm's hiring practices. Interaction with this group led Argona to see the organization "through a different set of eyes." He became exposed to a broader set of criteria for evaluating organizational performance and came to better understand the social and cultural aspects of organizational life and the processes through which organizational change is brought about.

Later, he was able to facilitate the interaction of influential line managers in manufacturing with some of these scientists, thus influencing their approach to organizational renewal.

At other points in the renewal effort, our data suggests that similar exposure to different "world views" changed the way Xerox employees thought about their business. Benchmarking trips to Japan helped senior executives to understand new forms of work organization that fundamentally enlarged the role of the first-line employee and suggested different driving forces for an organization. Hal Tragash exposed this same group to new conceptual models, either directly or through the facilitation of the upward flow of information about grass roots experiments in organizational improvement. The sharing of basic performance data with union leaders increased their understanding of the economics of the copier business and Xerox's competitive position within it. Whatever the form they took, such exposure to wholly different perspectives on organizational life challenged fundamental assumptions and opened the door to the possibility of new approaches to doing business.

Recognize That Structural Change Can Be Used To Facilitate Cultural Change

When employee participation was first implemented at Xerox, it met with mixed support from managers. Some saw its potential and were willing to facilitate its development. Others were opposed to it and either threw up roadblocks to participation or continued to manage in a way that discouraged employee

involvement. Managerial acceptance of the concept received a large boost when, in the early 1980's, the firm began to reduce the size of its supervisory workforce. The effect of this reduction in force was to significantly increase the span of control of many managers. In such an environment, a high control orientation with little delegation of responsibility makes management a tenuous enterprise. Thus, managers were forced to involve their subordinates more fully and to push decision-making responsibility downward, else many operational matters would not be attended to in timely manner. While this did not constitute active philosophical support for the concept of participation, it certainly put in place a set of operating constraints that made active opposition less likely.

Create Multiple Mechanisms For Participation*

Several years after the start of the QWL Program at Xerox, the number of employees volunteering for membership on the problem-solving teams began to decline. As the participation program was having a positive impact on corporate performance, this was not acceptable to Xerox. Its response was to make the QWL training mandatory for all employees, in the hope that the training would help employees to better understand the program and, thus, increase their desire to participate in it. While some employees were, indeed, encouraged to participate by this

*This section is drawn from Tracing a Transformation in Industrial Relations, U.S. Department of Labor, Bureau of Labor-Management Relations and Cooperative Programs, BLMR 123, 1988, p. 11-13.

action, the vast majority resented the mandate to attend. As the polarization of the work force became more evident, Xerox commissioned a survey to explore employee attitudes about participation and seek clues about how to approach the issue. The Components Manufacturing Operations unit in Webster, NY, employing about 1000 salaried and hourly workers, was chosen to be the test site. The survey was designed and administered by Larry Pace, one of Argona's behavioral scientists who had become Manager For Organizational Effectiveness in Reprographics Manufacturing, and Ron Mitchell, a graduate student at Cornell University's School of Industrial and Labor Relations who was consulting with Xerox.

The survey clearly verified that employees were polarized by the QWL Program. Some were very favorably disposed toward the program. Others had no use for it. Of greater interest, however, was the finding that a very high percentage of Xerox employees wanted more say in their work, wanted more information about business operations and company performance and were very favorably disposed to the idea of employee participation. Thus, employees wanted participation, but not necessarily through the mechanism of a QWL program.

To respond to this finding, the firm developed a new structure for participation in the Components Manufacturing area. The core of this new structure was the Business Area Work Group (BAWG), a grouping of hourly employees and supervisors, and associated engineers and union officials, involved in a

particular production activity. Supervisors led the groups. Bi-weekly group meetings to share information were mandatory for all members. Beyond such meetings, group members "would have the option to continue any QWL problem-solving groups, to form ad hoc groups to address specific problems, to serve as 'individual contributors', and/or to establish themselves as an autonomous work group."

The BAWG concept has proven to be quite successful. By providing a range of participative activities, it allows employees to become involved in a way that is compatible with their values and current skill levels. It also allows for an evolution in the depth of any employee's level of participation. The concept has migrated to other parts of the manufacturing organization, has increased the number of employees involved in work improvement activities and has encouraged a move toward greater levels of autonomy in the work force.

Participatively Develop A Detailed Strategy For Change; Give It Symbolic Weight

Interviews with Xerox employees at different levels of the organization suggest that Leadership Through Quality was noteworthy to employees as much for the process by which it was developed, as it was for its content. In the Xerox of old, meticulous strategy development was not something that was particularly visible to most employees, it if occurred at all. What was valued was action and achievement more than rigorous analysis and planning. This was quite understandable given

Xerox's historical dominance in the marketplace and its related internal culture of managerial competition.

The LTQ strategy development process was experienced by most employees as a departure from past behavior. In this regard, the comprehensiveness of the strategy, the time devoted to its development and the concern about buy-in by influential managers were strong cues that something was different. The early senior management meetings where the decision was made to build the company around quality have become part of the lore of the corporation, described in detail by even those employees who did not work for the firm at that time. Similarly noteworthy were the implementation task forces drawn from all major business units; their struggle to identify the critical infrastructural bases that had to be touched to reinforce the quality initiative; and the meetings where senior management was given the opportunity to "put their fingerprints" on the strategy.

Also important to the renewal effort was the creation of a strategy document - "The Green Book." As we have noted, this comprehensive statement of what would have to happen in the corporation if LTQ was to be successful, developed a totemic aura within the firm. For those who had access to it, it was evidence that they were employees of import. For those who did not, it was a mysterious object that influenced their fate within the organization. For all, it was a set of principles and a time-phased plan of action to make those principles come alive, that helped to make sense of the disruption of internal patterns of

behavior that accompanied LTQ - something that caused change and led to uncertainty about the future, and yet made such change understandable and, thereby, reduced uncertainty.

Recognize That A Quality Program Involves A Fundamental Re-design Of Managerial Work

Xerox recognized that employee participation and LTQ were basic cultural changes for the organization. Great attention and resources were devoted to helping employees to learn and apply new concepts and analytical methods. The focus of this activity was, however, the first level employee. While there was awareness that the quality program had implications for management, the prevailing sentiment seemed to be that managers would accommodate to it; that they would learn the new processes and incorporate them into their style with the same facility that they showed when taking on new tasks. Only with experience did it become evident that a quality process was really a major new method of management. As such, it brought into question all the basic assumptions that guide behavior in the managerial role. The "hierarchical management system" that had been in use was not compatible with a quality-based organization. Management in this new world was far more a matter of facilitation and coaching than it was of control.

As a result of this initial oversight Xerox, in the words of one prominent internal change leader, "...really didn't spend enough time teaching managers how to manage in this new system." Managers struggled to internalize the new methods, but often

found that the programming of long habit was not easy to change. Especially unsettling was the notion that under LTQ, it became increasingly acceptable to confront one's boss if he/she did something incompatible with the quality processes. Additionally, wholly new skills were necessary, but the development of these was assisted only after managerial frustration became manifest. Managers heard the messages about doing things differently. In many cases, however, they simply did not know how. This led to resentment in some managers, evident to this day, and were it not for the initiatives taken by internal staff experts like Tom Kayser to provide training and consultive assistance, this resentment could have significantly slowed the renewal effort.

Provide Specific Descriptions Of Desired Behavior When Roles Are Re-Defined

When asked to name the most influential contributors to cultural transformation within Xerox, internal change agents frequently point to the specification of role model behaviors for managers. In a strongly achievement-oriented culture, managers naturally focused on the factors that would lead to advancement. By incrementally defining an ever more specific set of critical behaviors and skills that were required for promotion, the firm provided both an unequivocal message that it was committed to a new way of doing business and a template to help managers to understand the implications of that new way of doing business for their role.

Facilitate Behavioral Feedback When Roles Are Being Re-Defined

An important tool that was available to managers as they tried to function in the new world was the Managerial Styles Survey. This instrument had been put into place by Frank Pipp to provide feedback to managers about the effectiveness of their management style. It was intended as a developmental tool to help managers "fine tune" their behavior. Managers were encouraged to meet with their employees to discuss the results and, through such action, to develop a better understanding of their shortcomings.

Under Leadership Through Quality, the survey was modified to help managers see whether they were appropriately using the quality tools and processes and were supporting the efforts of their employees. It was required that managers meet with their subordinates to discuss the results. Additionally, in many parts of the firm, the results were also sent to the manager's boss. Thus the survey became not merely a personal developmental tool, but a mechanism to assure cultural compatibility.

Change is Facilitated and Focused When Strategic Concepts Are Expressed In Tools

For employees not actually involved in designing strategic change, such change is often difficult to visualize. The key question asked by employees is: What does this change in orientation mean for me as I carry out my day-to-day responsibilities? The effective management of such change requires that employees receive assistance in answering this

question, that the change be made tangible for them.

Xerox discovered early in its renewal efforts that clearly defined analytical processes can be very powerful mechanisms to accomplish this. The six-step Problem-Solving Process was representative of the participative involvement of employees in organizational renewal. Indeed, for many, participation came to mean the Problem-Solving Process. The nine-step Quality Improvement Process provided a focus for employee problem solving. In essence, it defined the meaning of quality for employees in terms that were related to their actual work. These processes were tools that transformed abstractions like participation and quality into behavior that could be seen and learned. Without them, it is doubtful whether the renewal could have proceeded as well as it did.

Cultural Change Is Facilitated By A Rigorous Training Cascade

Training is a key element to the success of a Total Quality implementation. Employees must learn new analytical and interactive skills if they are to participate constructively in organizational improvement activities. One of the frequently observed problems with business training, however, is that the new knowledge imparted typically has a very short half-life in the consciousness of recent trainees. Simply exposing employees to new concepts is no guarantee that they will actually apply them. Additionally, even when employees are disposed to apply newly learned concepts, they may be discouraged from doing so by

incompatible behavior by organizational superiors.

Xerox addressed these problems through a four step training cascade process called LUTI -- Learn, Use, Teach and Inspect. Starting at the very top of the firm, senior executives were trained in the quality principles and tools. They were then required to actually apply the new learnings to a real business problem, with the results of their efforts inspected by their superior in the hierarchy. Once they had successfully completed this "use" phase, they were required to teach the same principles and tools to their own subordinates, usually with the assistance of a professional trainer. When the subordinates attempted to apply the principles, the manager was required to work with them as coach and inspector. This process was then repeated by successive layers of the hierarchy until all had been trained.

The value of the LUTI process was that it forced every manager in the firm to go through the training twice, once as a student and once as a teacher, and to be involved in two application sessions, once as a problem solver and once as a coach/inspector. Through such repetition, the probability of the new learnings being internalized was significantly increased, thus facilitating buy-in to the new concepts. Additionally, the LUTI process forced a "family" group to learn together, thus facilitating the development of a shared language within the group and encouraging reinforcement of the newly learned skills through on-the-job interaction with co-workers.

The system was not without its flaws, however. Chief among

them was that it overlooked the amount of time it typically takes to internalize a set of new concepts. Thus, managers did not really teach their subordinates, they were merely there to provide a supportive presence while someone who really understood the concepts taught them. Additionally, effectively inspecting the output of others assumed that the new concepts were both thoroughly understood and valued and that managers knew how to evaluate and coach the performance of others. Often this was not the case. With experience, however, these weaknesses were recognized and addressed. Particularly useful, in this regard, was an inspection workshop that helped managers to understand inspection as a process of supportive questioning designed to help others to understand their own thought processes more clearly.

Create Mechanisms To Celebrate Success

Massive cultural change takes a severe toll on an organization. Established patterns are disrupted. Employees must struggle to learn and apply new concepts and skills. Even more painfully, they must discard old behaviors that are no longer appropriate.

In such an environment of change in a large and very complex organization, it is easy to lose sight of where the organization is going. The struggle to change, with all its attendant frustrations, dominates the consciousness of employees, from shop floor workers to senior executives. When success, does occur, it

is very important that it be identified and celebrated. Xerox clearly saw this need and developed mechanisms for celebrating success. Most noteworthy among these is Teamwork Day. This event was and is a massive glorification of the collective struggle to improve. It is a cultural happening. For those groups of employees who are chosen to display their improvement projects, it provides powerful recognition that their efforts are valued. For those employees who simply attend to view the successes of others, it provides a re-affirmation of the principles of Leadership Through Quality and an opportunity to re-energize themselves for future improvement activities. Given the long time period required for cultural renewal, such reinforcement activities are critical, else frustration and disillusionment will side-track the improvement program.

Top-Down Change Is Required When Organizational Culture Must Be Transformed

Xerox embarked upon its renewal effort because of stress in its technical system. Basically, the firm's internal production environment was inefficient and was placing a competitive tax on its products in speed of development, quality and cost. The firm's initial solution to this problem was a QWL program that sought improvements in how work was done through employee involvement. While this initiative was sanctioned by senior management, it could not be said that the program involved management in an active way. This was a distinctly voluntary grass-roots effort, largely facilitated by staff. It was only

modestly successful in turning around corporate performance because it confronted fundamental beliefs about how work should be done and threatened established power bases. As a result, only a minority of employees chose to be involved and managerial intransigence was often in evidence. Clearly the cultural and political systems of the organization were not yet ready for this type of work re-design effort.

Leadership Through Quality was created to address the cultural and political aspects to corporate renewal. It was developed by senior line managers to provide an unequivocal message that improvements in Xerox's competitive position required massive cultural change. Most important, however, it clearly stated that cultural change required managerial change. As the most influential "carriers" of the culture, Xerox managers were being told that the established patterns of managing the enterprise were no longer appropriate. There would be little tolerance for behavior that was incompatible with the quality improvement activities. The LTQ strategy document contained specific prescriptions for what acceptable managerial behavior would look like and outlined the infrastructural changes that would support such behavior. It was a comprehensive, totally integrated change program designed to bring about cultural change in the shortest possible time frame. Such a program could only be developed and driven by the very top of the organization.