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The Role of Organization Development in Quality Management and Productivity Improvement

Second in the
Theory-to-Practice Monograph Series

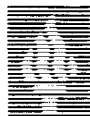
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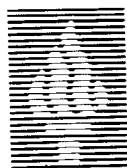
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Quality and Productivity as Human Resource Concerns

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Why should the American Society for Training and Development (ASTD) sponsor a symposium focusing on quality and productivity and publish the outcomes in a monograph? The answer is fairly simple. Without quality, business and industry cannot be productive. If a country's business and industry are not productive, then that country's economy will experience the same kind of downward slide that the United States has experienced over the last decade. A downward slide means a loss of jobs, including jobs in training and organization development, as well as in other human resource fields. But beyond the parochial concern of our own job security is the broader economic and ethical concern of the welfare of the workforce.

Burns (1987, 1) outlines several reasons why the human resource function within an organization currently faces an "unparalleled opportunity":

First, the new-found interest in total quality among [U.S.] companies is more than a fad. With the influx of foreign products . . . , the concern over the competitiveness . . . has taken on a new level of seriousness. Total quality is not a luxury, it is a necessity.

Second, those companies which have taken a major stand and have entered into a genuine commitment to improve the level of excellence with which they operate, have found the effort involves not less than a major shift in organizational values.

Third, total quality requires a strong and unrelenting commitment to the continued development of the human resource. The principles and tools of total quality require a set of skills and a methodological determination not found in many firms before.

The values inherent in these statements are very similar to those found in the statement of ASTD's Organization Development Professional Practice Area (1987, 4) which lists the values of the field:

We believe the practice of organization development: must be in alignment with organization and business objectives; is rooted in the behavioral sciences; is long range and on going; stresses a process orientation to achieve results; is based on collaboration; [and] is a systems orientation.

Those people invited to attend the symposium were selected because of

their reputations as practitioners in organization development, as well as in quality management and productivity improvement. We began with the bias that quality management and productivity improvement processes not only could benefit from the practice of organization development, but that the professional practice of organization development was necessary if such a significant change effort in most organizations were to succeed. We believe that the chapters in this book, responding to Ledford's chapter, make a significant contribution to understanding this integral relationship.

A brief background on quality theorists

While many individuals have contributed to our current understanding of the need for a quality emphasis to achieve high levels of productivity, three are currently the "leading gurus": W. Edwards Deming, Joseph M. Juran, and Philip B. Crosby. At least one chapter author in this monograph comes from an organization primarily committed to each of these theorists. What follows is a summary of the quality perspectives of each theorist, along with conclusions about what each approach implies for training and organization development professionals.

W. Edwards Deming is often the first name one thinks of in relation to quality because of his work in Japan during the early 1950s. For Deming, quality is a "predictable degree of uniformity and dependability, at low cost and suited to the market." Deming's approach underscores the importance he assigns to Statistical Process Control (SPC) in providing an organization with ongoing information about quality.

But Deming's approach is more than simply statistics; it is a total management perspective. Deming (1982) has outlined 14 principles for management that are essential for an organization to achieve total quality:

- Create constancy of purpose for improvement of product and service.
 - Adopt the new philosophy of refusing to allow defects.
 - Cease dependence on mass inspection and rely only on statistical control.
 - Require suppliers to provide statistical evidence of quality.
 - Constantly and forever improve production and service.
 - Train all employees.
 - Give all employees the proper tools to do their jobs right.
 - Encourage communication and productivity.
 - Encourage different departments to work together on problem solving.
 - Eliminate posters and slogans that do not teach specific improvement methods.
 - Use statistical methods to improve quality and productivity continuously.
 - Eliminate all barriers to pride in workmanship.
 - Provide ongoing retraining to keep pace with changing products, methods, etc.
 - Clearly define top management's permanent commitment to quality.
- Almost every point implies a training need. If organizations are to use

statistical process control (SPC) everyone must know how to use it and how to interpret the results. If suppliers are to use SPC, their personnel will need training. Communication training, problem-solving training, management development, facilitation skills development, conflict management, team building—all of these common tools in training and organization development become critical skills for any organization attempting to implement Deming's principles.

Joseph M. Juran followed Deming to Japan and has also had a significant impact on organizations attempting to implement a quality emphasis. Juran (1964, 1974) defines quality as "fitness for use." His approach is project based, emphasizing the "breakthrough sequence." Juran uses two committee structures— steering arm and diagnostic arm—to move an organization first from symptom to cause and then from cause to remedy. He warns against moving from symptom to remedy immediately, without first identifying the cause. Juran emphasizes SPC, but he also uses quality circles and other problem-solving techniques broadly.

Like Deming, Juran requires an educational approach to provide both specific tools (problem solving, quality-circle facilitation, SPC) and organizational change (to support the quality culture and the breakthrough sequence process). Human resource development becomes a critical component in this process.

Philip B. Crosby takes a more top-down approach than either Deming or Juran. Crosby defines quality as "conformance to requirements." Crosby (1979, 1984) has established four absolutes of quality management:

- Quality is conformance to requirements.
- The system of quality is prevention.
- The performance standard is zero defects (ZD).
- The measurement of quality is the price of non-conformance.

To accomplish these absolutes, Crosby lays out a 14-part approach:

- management commitment
- quality improvement team
- quality measurement
- cost of quality evaluation
- quality awareness
- corrective action
- ad hoc committee for the ZD program
- supervisor training
- ZD day
- goal setting
- removal of error causes
- recognition
- quality councils
- repetition of the process

Like Deming and Juran, Crosby puts considerable emphasis on education, outlining three levels of education appropriate to a person's position in the

organization. Similarly, with a new emphasis on quality, a shift in the culture of the organization requires the support of OD professionals.

Conclusion

Quality management and productivity improvement must become a focus of all businesses and industries whether they are manufacturing or service oriented. And, if human resource development professionals are to be quality professionals, they must be involved in this quality movement. The chapters in this monograph are designed, therefore, to give such professionals an overview of the past successes of organization development in improving an organization's effectiveness. Also included are specific recommendations that arose from the experience of OD practitioners as they attempted to infuse quality and productivity concerns into their practices.

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Organization Development for Organizational Performance

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Most sectors of the United States economy face pressures for improving productivity and product quality performance that were unthinkable only a few years ago. Foreign competition is a painfully obvious pressure in the manufacturing sector. Deregulation has changed the economics of telecommunications, transportation, and banking by imposing new requirements for quality in services and products and at the same time creating ever-greater pressure for lower costs. Changing technology has affected manufacturing and service industries alike; the revolution in information technology has extended even to the office. Massive restructuring of corporations, undertaken to forestall or respond to an unprecedented wave of mergers and acquisitions, has forced organizations to do more with less. These and a variety of other factors have forced organizations to attempt a quantum leap in quality and productivity. For company after company, tinkering at the margins will not do. Organizational survival (or at least executive survival) depends on rapid and major improvements in performance.

In this context, the most basic management beliefs and assumptions come into question. Managers search for ways of improving performance that were ignored or rejected in the past. The techniques of successful domestic and foreign competitors take on a special glow of credibility, but other little-used innovations also receive a fresh look. Today, organization development (OD) approaches are among those being dusted off for closer inspection.

This chapter offers a perspective on the potential contribution of organization development to making the kind of major improvements in quality and productivity needed by contemporary organizations. I will argue that OD interventions can have the desired effects, although the effects in a particular case are difficult to predict. I also will argue that the effects of OD-related changes in any organization depend largely on contextual conditions and on implementation processes. I will discuss some of the key forces that seem to determine the effects of OD efforts on quality and productivity.

I will present four main issues in this paper. First, I will define *organization development*, *quality*, and *productivity*. Second, I will review some of the research evidence concerning whether organization development approaches make a difference in improving quality and productivity, and I will consider the limitations of prior research. Next, I will consider several factors and will propose a model to explain under what conditions organization development changes are effective and long-lasting.

Concepts

This section presents definitions of the three primary concepts examined in this monograph: *organization development*, *quality*, and *productivity*.

Organization development

Organization development is a generic label for a diverse set of strategies and practices. OD evolved after World War II from methods and theory related to small-group behavior and from action-oriented research based mostly on survey feedback methods. Over the years, OD practitioners have embraced a wide variety of methods and approaches. As the practice of OD has become more varied and the boundaries of the field have become less clear, the term *organization development* has become less common. It has been replaced to some extent by newer, more fashionable brand names that rest on much the same base of theory and practice as OD. For that reason, I make no sharp distinctions between OD and alternative terms such as *planned organizational change*, *quality of work life*, *strategic human resource management*, *sociotechnical systems design*, and *organizational transformation*. While each of these terms has a different emphasis, for the purposes of this chapter, the similarities are more important than the differences.

The question remains, "What is organization development?" Huse and Cummings (1985, 1) offer one definition:

... a process by which behavioral science knowledge and practices are used to help organizations achieve greater effectiveness, including improved quality of work life and increased productivity. Organization development differs from other planned change efforts ... because the focus is upon human resources and their motivation, utilization, and integration within the organization.

Examples of OD interventions include employee participation groups, team building, survey feedback, work redesign, and productivity gainsharing. The Huse and Cummings definition suggests several features of OD that distinguish it from other perspectives on organizational change. Two of these features are especially important.

First, OD has a behavioral science knowledge base. Most of the founders of the field were psychologists and other social scientists interested in practice as well as research. Much of the store of knowledge built up in the field of OD is in the journals of various social science disciplines. The social science origins of OD explain the fascination of OD practitioners with such topics as employee participation, small-group behavior, individual differences, and motivation. These concerns sometimes lead managers to view OD as "soft" or "touchy-feely"—characterizations that are only sometimes accurate.

Employee involvement or participation, in particular, is a distinguishing characteristic of OD interventions. Participation is a key part of the field's value-set. Indeed, some OD advocates (Sashkin 1984) argue that participation is an "ethical imperative" for organizations. Although not all OD practi-

tioners would agree with that statement, the vast majority would argue on the basis of social science research that employee involvement or participation can enhance organizational effectiveness, at least in some situations.

The behavioral science base of OD also explains why OD practitioners tend to profess an "action-research" orientation. Action research is a method of change that involves cycles of data collection and action. In its purest form, action research uses social science methodologies to enhance the effectiveness of the change and to add to OD's knowledge base. Action research remains an ideal that is more often espoused than practiced, since serious research is conducted on a relatively small percentage of OD interventions, and the research forms an integral part of the intervention in even fewer cases. Still, action research is important enough in the field of OD that many definitions of organization development include action research as a key element.

Secondly, OD defines organizational effectiveness both in terms of criteria relevant to organizational performance and in terms of outcomes relevant to employees (broadly termed "employee quality of work life"). Where possible, optimization of both organizational and employee outcomes is the goal of OD. This distinguishes OD from many approaches to organization change that are directed solely at obtaining organizational benefits (for example, shifts in product strategy and mergers and acquisitions) or that are directed primarily at obtaining benefits for employees (for example, unionization and government regulation to protect health and safety). A commitment to meeting both individual and organizational needs is one of the most fundamental values of organization development.

With this definition of OD in mind, we can examine whether some of the currently fashionable approaches to improving organizational performance represent OD or some other type of organizational change. Quality circles (QCs) fit nicely within the definition. A QC is a trained group of volunteers from a common work area who meet regularly to develop suggestions for improving quality and productivity. Although the historical origins of QCs lie outside the OD field, QC programs are quite consistent with OD's emphasis on employee participation, small-group processes, and use of a "parallel organization" structure. Indeed, many companies have simply repackaged old OD training programs on participative group problem solving and labeled them as new QC training programs.

On the other hand, such quality improvement techniques as statistical process control (SPC) and tracking the "cost of quality" derive from engineering and operations research traditions rather than the OD tradition. These techniques can be taught and used in ways that are consistent with OD practice, such as teaching shop floor employees or quality circles how to monitor quality and correct quality problems. However, these techniques usually do not rely on a behavioral science base of knowledge, do not necessarily require employee participation, and are intended to meet organizational rather than individual needs.

The set of famous consultants recently called "quality gurus" in *Fortune*

magazine (Under the spell . . . 1986), including Philip Crosby, W. Edwards Deming, Joseph Juran, Armand Feigenbaum, and others, also come from outside the OD tradition. Their concern is with organizational improvement in quality performance, not with jointly improving individual employee quality of work life and organizational performance. Their training and experience place them in such traditions as engineering and statistics. To my knowledge, none of them has ever published a research article in a behavioral science journal, nor has any behavioral science researcher ever published a test of the effectiveness of their elaborate programs for improving organizational quality.

Most importantly, the advice of these “gurus” is compatible with OD to different degrees. Deming and Juran, despite their differences, appear to be closest in spirit to OD. Organizations can borrow their techniques for use in a larger OD effort, as Ford Motor Company (Brooks & Linklater 1986) has done with the Deming approach and Hughes Aircraft (Hesterman 1986) has done with statistical process control. The use of quality circles is consistent with their teachings, and the upsurge in QC activity in the U.S. is often attributed partly to their increasing influence. Other experts, such as Feigenbaum, do not appear to be highly concerned with issues central to OD; they appear to operate as hands-on quality engineers who troubleshoot around specific problems. Finally, Crosby’s advice often flatly contradicts the OD approach. His approach (1979, 1984) is highly top down and elitist; it takes a very psychologically simplistic view of motivation (for example, assuming that worker knowledge of management-defined objectives and rules is sufficient to motivate behavior). Crosby’s approach also ignores the necessity of union involvement in unionized settings and makes no use of reward systems or employee involvement (Cole 1986). Most OD practitioners would reject Crosby’s approach on all these grounds. In my view, Crosby’s approach works at cross-purposes with OD, and the two should not be used in the same organization unless Crosby’s methods are substantially altered to make room for real employee involvement.

OD, then, is a complex set of techniques and approaches. Although it is broad, OD does not include everything under the sun. OD approaches rely on a behavioral science knowledge base and attempt to optimize both organizational and individual benefits. This sets them apart from many other means of changing organizations.

Two key performance measures: quality and productivity

Organizations can measure quality in terms of the percentage of errors in output, such as the percentage of parts that are scrapped or reworked, or the percentage of customers who are given poor service. The rub, of course, is that different people may have very different definitions of what constitutes an “error” in output. Quality errors may arise because a product does not perform as intended, because it does not conform to aesthetic standards, or because it is deficient in comparison to similar products.

Similarly, producers and consumers may have quite different views of what meets a quality standard. Take recent statements by a General Motors executive that GM cars "are as good as those made anywhere in the world." GM executives may be so insulated from their customer that they actually believe this claim.

Productivity is a critical but frequently misunderstood measure of performance. Productivity is not a measure of production or output; it is a ratio measure typically defined as the ratio of outputs to inputs. Outputs include the goods and services produced by an organization. Inputs include labor, capital, materials and supplies, and energy. The most commonly cited measures of productivity are really measures of one type of productivity—labor productivity. For example, the U.S. Department of Labor's Bureau of Labor Statistics publishes quarterly data on private-sector productivity, defined as the constant-dollar value of all goods and services produced in relation to total labor hours worked.

Until recently, U.S. manufacturers tended to assume that quality and productivity were relatively independent measures, and that stressing quality meant increasing unit production costs and therefore lower productivity. A major Japanese contribution to U.S. management thought is that these two measures are often tightly connected. The reduction of quality problems can increase productivity; scrapped or reworked parts represent labor and other inputs that the organization expends without converting into outputs. The interrelationship of quality and productivity is especially obvious in many parts of the service sector where the two measures are often inseparable. In medical care and education, for example, productivity measures that do not include a quality component are not meaningful.

Managers are accustomed to thinking of quality and productivity as "hard," quantifiable measures of performance. Although these measures frequently are quantifiable, they are not "hard" in the sense of being absolute or existing outside the social context in which they are devised. A stunning number of organizations fail to measure quality and productivity either because they choose not to measure them or because they cannot understand how to measure them in their situation.

One review of the productivity effects of eight pioneering union-management quality of work life projects (Lawler and Ledford 1981) found that only four of the eight organizations hosting the projects measured productivity at all. No meaningful productivity measures existed in a federal utility or in three service organizations, so determining productivity effects in half of the eight cases was impossible. Moreover, organizations even in the manufacturing sector often use inappropriate measures that can give misleading results of the effects of organization development and other changes.

Each organization must devise unique quality and productivity measures. Management must devise appropriate measures, ensure that regular measurement occurs, and ensure that employees at all levels understand both the measures and the results of performance measurement. This feedback is

essential to detecting, correcting, and learning from mistakes, and thus for improving quality and productivity performance.

We have explored the nature of organization development, quality, and productivity. In the next section, we examine some of the research evidence about the connections among these concepts.

Research: Can OD interventions improve productivity and quality?

For several decades, researchers have questioned whether OD interventions can contribute to improvements in quality and productivity. Indeed, evaluation of the effects of particular OD-related changes is one of the main themes in the research literature on OD. The research base has many flaws, but enough evidence has accumulated to draw two firm conclusions: OD interventions often enhance quality and productivity, and OD interventions often fail to contribute to improved organizational performance for a variety of reasons. This section considers some of the literature that supports the first conclusion; the next section proposes a model that helps explain the second conclusion. The purpose of this section is not to offer a comprehensive review of the dozens of prior studies conducted. Rather, the purpose is to demonstrate that OD-related changes often do have positive effects on quality and productivity. This section will consider OD interventions in general and three specific interventions that are especially prominent in the field.

Overall evidence of OD effects on performance

The most comprehensive review of the effects of OD interventions on quality and productivity is in Nicholas' (1982) review of 65 studies. The studies reported the outcomes of three broad types of OD interventions—those aimed at the interface between people and technology or organizational structure, those aimed at human processes, and multifaceted interventions—in terms of one or more of four types of “hard outcome criteria.” The four criteria were: quality, productivity, work force behavior (turnover, absenteeism, grievances), and financial performance. For interventions aimed at technology and structure (job enlargement, job enrichment, job enrichment based on workers designing their own jobs, and self-managing work teams), 67 percent had significant positive effects on output quality, while 45 percent showed significant positive effects on productivity as this paper defines it. One-half of the interventions aimed at human interaction (laboratory training, team building, and survey feedback) showed positive impacts on productivity; one-half also showed improvements in quality performance. Among multifaceted interventions that used both technostructural and human processing techniques, 60 percent showed significant improvements in quality, and 38 percent showed significant improvements in productivity. Considerable variation existed within subcategories. Overall, however, the results indicate that some of the most common OD interventions often have positive effects on performance.

Quality circles

A quality circle is a small group of employees from a common work area who get together regularly to identify and generate solutions to problems in their work situation. Quality circles are probably the most popular OD-related intervention in the U.S. Lawler (1986) estimated that at least 200,000 U.S. workers have been members of quality circles. Many anecdotes claim astounding monetary benefits from QCs. For example, Lockheed claimed to have saved over \$2.8 million through the work of 15 circles during a two-year period in the 1970s (Bocker & Overgaard 1982). Such estimates, however, are open to question for a variety of reasons, including lack of research data, possible competing causes of performance improvements (such as technological changes), consideration only of the benefit side of the cost-benefit ratio, and the fact that such estimates tend to represent projected rather than actual savings.

Surprisingly little hard research evidence shows the effectiveness of quality circles; research has lagged behind practice (Ledford, Lawler, and Mohrman 1987). A striking characteristic of OD is that there are more "how-to" manuals than scientific studies of QC effectiveness. Few evaluation studies have appeared in scientific journals. One, by Mohrman and Novelli (1985), reports on a QC program that died relatively quickly but may have had a slight positive effect. A second study, by Marks, Mirvis, Hackett, and Grady (1986), examines data from 64 QC participants and 64 nonparticipants in a manufacturing organization. The authors concluded that QCs led to significant improvements in work quality and productivity, and to reductions in absenteeism. Jenkins and Shimada (1983), in a study of 450 production workers, found that production quantity, quality, and rework performance were better for QC members than nonmembers. Overall, however, the evidence that QCs have positive effects on quality and productivity is scarce and inconsistent (Ledford, Lawler, and Mohrman 1987).

Gainsharing

Gainsharing plans, including the Scanlon Plan, the Rucker Plan, the Improshare Plan, and innumerable custom-designed plans, pay bonuses to employees from the pool of savings created by exceeding some baseline of performance, such as a historical quality or productivity standard. The plans typically incorporate employee suggestions for improving performance. A review of 33 published studies reported by Bullock and Lawler (1984) found that, in two-thirds of the available cases, organizations using gainsharing obtained some tangible benefit, such as improved productivity. This knowledge base is relatively weak; at this writing, only one study of gainsharing effectiveness has appeared in a scientific journal.

Still, there is some impressive evidence of the potential payoff of gainsharing. The U.S. General Accounting Office (1981) studied financial data from 24 firms with gainsharing plans and found that the plans were generally successful; labor-cost savings overall averaged almost 17 percent and averaged

29 percent in firms that had gainsharing plans in place for at least five years.

Payouts to employees can be quite substantial. For example, Frost (1982) reported that employees at Herman Miller, Inc., received an average bonus of nearly 11 percent for 30 years under their Scanlon Plan. This figure obviously represents a major improvement in organizational performance over the same period, since bonuses are paid only if performance exceeds the baseline.

New high-involvement plants

High-involvement organizations incorporate high levels of employee involvement into most or all major elements of the organization design. These designs have reached their most advanced form in new organizations, especially new manufacturing plants, that are built from the ground up around employee involvement principles. Walton (1985) speculated that over 1,000 such organizations currently exist. The most common design elements of these organizations (Lawler 1986) include the following:

- a very flat and lean organizational structure, with minimal management layers and support personnel. The structure is based on work teams or "mini-enterprises," often including a formal participation structure such as a work council for making major decisions.
- self-managing work teams or individually enriched job designs, depending on the technology
- participative goal setting and highly open, decentralized, team-based information systems
- multiple-track career system, extensive counseling, and open job posting
- hiring by team members using a realistic job preview, with criteria oriented toward future potential, interpersonal skills, and technical skills
- extensive training often conducted by peers, in the economics of the business, interpersonal skills, and technical skills
- relatively egalitarian distribution of rewards and an all-salaried pay system, using skill-based pay, gainsharing, employee ownership, and flexible benefits
- personnel policies that emphasize employment stability and that are determined with employee participation
- safe, pleasant physical layouts designed around organization structure that symbolically emphasize egalitarian values

This set of design characteristics is intended to operate as a harmonious, mutually reinforcing whole. The design is meant to advance core values of employee involvement and commitment as well as high performance (Mohrman, Ledford, Lawler, and Mohrman 1986; Walton 1985).

Although little research exists on the effectiveness of high-involvement plants, the available evidence suggests that such plants tend to be top performers. For example, an internal corporate study found that the famous General Foods plant at Topeka, Kansas, (since sold to another company) had 40 percent lower costs than a comparable traditional plant (Lawler 1986).

The plant was staffed with only 70 people, compared to 110 employees under the traditional way of staffing (Walton 1972). Internal corporate data also suggest that the plant has been at, or very near, the top in terms of quality compared to similar plants throughout its lifetime. A Digital Equipment Corporation circuit board plant in Enfield, Connecticut, also was reported to be highly successful (Proctor 1986). Compared with traditional plants, Enfield achieved its output with half the number of employees needed under a traditional design, reduced scrap by 50 percent, reduced overhead by 40 percent, and saved \$1 million in plant layout. Mohrman, Ledford, and Demming (1987) report on a TRW plant in Lawrence, Kansas, that is the highest quality and lowest cost producer in its industry. It operates with one-third fewer employees than a comparable traditional plant to achieve the same output and enjoys very favorable employee attitudes.

Not all high-involvement plants are highly effective. Perkins, Nieva, and Lawler (1983) provide a detailed case study of a medical products plant in which the results are mixed at best. Overall, Lawler (1986) suggests that most high-involvement plants are highly effective in terms of their levels of quality, productivity, and quality of work life. In this section we have examined some research evidence suggesting that OD interventions can have highly positive effects on quality and productivity. None of the interventions examined is always effective, but several show consistently positive effects. In the next section we will consider what separates effective from ineffective interventions.

A model of OD effectiveness

Why do some OD interventions succeed while others fail? Why are changes often abandoned, even if they show good evidence of improving performance? Literally hundreds of variables and dozens of models have been proposed in answer to these questions. Here I would like to focus on three general factors that I believe account for a very large percentage of the variance in whether OD interventions work and continue over a long period of time. These factors are central to recent thinking about the determinants of organization design and the conditions that lead to organizational effectiveness. Each of the three factors is a type of "congruence" or fit: environmental congruence, organizational congruence, and change congruence.

Environmental congruence

Environmental congruence is the degree to which an organizational change is consistent with environmental demands. Considerable research on the sociology of organizations indicates that changes in the structure of organizations are largely determined by environmental forces. Strong evidence that the changes are necessary for competitive success in the marketplace leads organizations to adopt some changes. Most organizational changes, however, are adopted because they have legitimacy in the external environment, not because of compelling rational evidence of their efficacy. Organizations accept

these changes because they are part of the societal definition of "good management." Adopting the change portrays the organization as a legitimate part of society, and thus entitles it to continue receiving vital inputs from the environment. The diffusion of participatory work structures in Japan, Sweden, and the U.S. illustrates this pattern (Cole 1982).

Several types of environmental pressures are especially relevant. First, organizations tend to imitate the practices of successful competitors and successful organizations, such as Peters and Waterman's "excellent companies" (1982), that they consider models of successful management. Witness the tremendous upsurge in interest in Japanese management practices (including quality circles), a movement that did not occur until the Japanese became successful competitors in world markets. Second, organizations tend to adopt changes that are consistent with the needs and demands of their labor force. The degree to which organizations are responsive to such needs and demands is largely a function of the labor market; a tight market leads to greater responsiveness. Third, technology exerts strong pressures for organizational changes that help realize the benefits of the technology. Different types of organizations usually can effectively use a given technology, but the range of options is not infinite; there are only so many ways to make steel, teach students, or sell groceries. Fourth, macroeconomic conditions offer important reasons to adopt change or seek stability. Arguably, the most powerful single force for a variety of fundamental organizational changes (downsizing, restructuring, reducing layers of management, etc.) has been the merger and acquisition wave. Finally, other institutions with which the organization is interdependent can exert pressures for change. For example, unions remain a powerful constraint on and determinant of the types of changes possible in a significant, if declining, part of the economy. Also, government agencies, such as the Occupational Safety and Health Administration, can force companies to adopt certain changes.

Currently, all of these environmental pressures favor the adoption of new human resource practices such as organization development. Fifteen years ago, top-heavy bureaucracy oriented toward control and stability was the management ideal, and relatively little environmental legitimacy existed for OD approaches. Today, that picture has changed drastically; organizations view the old ideal as the problem, not the solution. Second, a large percentage of the workforce responds favorably to opportunities for participation in decisions that affect them. Third, technologies being adopted in the factory and office open up new possibilities in organization design, many of which are compatible with OD approaches. Fourth, macroeconomic forces are providing management with powerful incentives to improve performance sharply, forcing them to try alternatives, such as OD, that they may have ignored in the past. Finally, a variety of institutions are pressuring organizations to change and are offering guidance and support for that change. For example, many companies have decided that traditional, adversarial union-management relations are ineffective and costly. Therefore, they are attempting to develop better relationships with their unions through quality of work life programs.

Organizational congruence

Organization theorists with a systems perspective have long argued that the most effective organizations are highly congruent internally. That is, the key elements of the organization design—structure, rewards, hiring, etc.—all work together as a mutually reinforcing whole. Theorists note that different organizations in the same industry can be highly effective even though they are designed in different ways, as long as they are consistent in their design. For example, IBM and Digital Equipment Corporation are two successful organizations in the computer industry, yet they could not have more different designs. IBM is the quintessential well-run bureaucracy, while DEC strikes most people as a chaotic organization. IBM stresses individual accountability throughout its design, while DEC has a more team-based design. What is important is not which is better; either design can be successful. What is important is that the organization relentlessly adjusts its structure and functioning so that all the pieces of its design-puzzle fit together.

Recently, several theorists have attempted to identify the design elements of organizations in which the guiding design principles are employee involvement and commitment, compared to organizations in which the guiding design principles are stability and hierarchical control (Mohrman, Ledford, Lawler, and Mohrman 1986; Walton 1985). The former designs are compatible with organization development interventions, such as new high-involvement plants, which install a wide variety of those key design elements more or less simultaneously. (See the previous discussion of high-involvement plants for a list of the key design elements of such organizations.) The track record of these plants shows the power of a mutually reinforcing design based on employee involvement principles. Moreover, the stability of these multifaceted designs over many years is very encouraging, compared with the tendency of single interventions (such as quality circles) to disappear after a few months or years.

Reward systems illustrate the importance of internal congruence. Traditional reward systems encourage employees to work as individuals, not as a team, to learn only the skills necessary to do their assigned jobs, and to pay attention to their own performance but not the overall performance of the organization. A number of reward system options, however, have the opposite effect. Skill-based pay, as opposed to job-based pay, rewards people for the skills they have learned and the number of jobs they *can* do rather than for the job they are presently performing. Skilled-based pay is an important supplement to job design changes, such as self-managing work teams, because it provides employees with positive incentives for learning all the skills within their team. Gainsharing similarly rewards teamwork and identification with the organization as a whole, because employees share in improvements in organizational performance rather than individual performance. Profit sharing and employee ownership show employees in a tangible way that their rewards are tied to the fate of the organization. Flexible or cafeteria-style benefits provide employees with choices about how to spend

their benefit dollar, a plan consistent with an orientation toward participation in the design. Thus, the effective reward system, like every key element of the organization design, will be internally congruent or consistent with the values of the rest of the organization.

Change congruence

Change congruence is the degree to which the organizational change includes multifaceted pieces that simultaneously help change different elements of the existing organization design. In a sense, change congruence is a special case of organizational congruence. To the extent that multiple congruent changes are implemented simultaneously, organizational congruence is automatically enhanced. In the case of new high-involvement plants, no real boundary exists between organizational congruence and change congruence. Nevertheless, the distinction between change congruence and organizational congruence is useful, as we shall see.

In summary, then, there are three major types of congruence that help determine whether OD-related organizational changes will be effective and long lasting. The argument here is that, if the change is congruent with environmental demands, the internal design of the organization, and other changes implemented at about the same time, the change will be more successful in increasing organizational performance (in terms of quality, productivity, and other criteria). Under these conditions, the change is also more likely to become deeply rooted in organizational structure and functioning, and therefore to persist over a long period of time. Next, we will carry this analysis a step further and consider the implications of these factors for OD.

Implications for OD effectiveness

The preceding evidence leads to the following implications for OD effectiveness:

- *Effective changes are pervasive.* In the long run, changes that make the greatest difference in improving quality and productivity are changes that enhance the operation of the organization design and that become so deeply rooted in organizational structure that it is difficult to eliminate them. Such changes are high in organizational congruence. Effective change efforts, then, will in the long run touch many facets of organizational structure and functioning. Implementing one OD intervention, such as survey feedback, quality circles, or team building is not enough. The change must link with a variety of other organizational features that allow it to work. In most traditional organizations, this means that successful changes are usually related to changes throughout the organization.
- *Changes that are easy to adopt are hard to sustain, and vice versa.* The distinction between change congruence and organizational congruence highlights a strategic dilemma in change design. Essentially, change strategies that are high in internal congruence place a heavy load on the

Figure 1—Forces for organizational change

Environmental Congruence

- Practices of competitors and prestigious organizations
- Labor Force
- Technology
- Macroeconomic Conditions
- Interdependent Institutions

Organizational Congruence

- Organizational Strategy
- Organizational Structure
- Work Designs
- Rewards
- Hiring
- Training
- Union-Management Relations

Change Congruence

organization when it begins the change process. New plant designs, gain-sharing plans, and sociotechnical systems designs all have high change congruence but initially are likely to be low in organizational congruence. As a result, organizations are less likely to adopt such complex changes over other types of changes.

For example, the highest estimate I have seen for the number of high-involvement plants is more than 1,000 (Walton 1985), and the highest estimate for the number of gainsharing plans in the U.S. is about 1,000 (General Accounting Office 1981). These numbers are small compared with the widespread adoption of OD-related innovations such as quality circles, which represent much less fundamental and encompassing change. Combining high-change congruence and low organizational congruence spells revolutionary change, which organizations are simply less likely to implement than incremental change. However, it is easier to halt, abandon, or redirect a piecemeal sequence of changes than a tight cluster of congruent changes. Thus, rather than implement congruent changes, organizations will more likely adopt innovations that are low on change congruence but are less likely to sustain those innovations.

- *Environmental pressures help stimulate change, but only to a point.* Environmental pressures are the source of much organizational experimentation. For example, I know of organizations in which a key executive or manager attended a training seminar or read about a success story. Then the executive wanted a plan on how to “install a new culture” by next week, or wanted six quality circles implemented within two months, or planned to implement a new gainsharing plan without understanding the concept. Ideas for change flow from other organizations, media coverage of changes elsewhere, the consulting community, and other communication channels.

But, lifting organizational changes in cookie-cutter fashion from one organization to another is virtually impossible. Organizational congruence is different in each organization. Therefore, the points of resistance and the appropriate sequence of changes will differ from one organization to another. Thus, environmental congruence is probably more important in the adoption of innovations than in their long-run development and success. Organizational congruence and change congruence become more important once the organization has adopted the change; at that point, the organization must reinvent the change to fit its own peculiar conditions.

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Transforming OD Principles into Practices

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All we can say about change is that it is changing. We may disagree about its rate, its direction, and its consequences, but we would not disagree that change is different today than it was yesterday, and will be different tomorrow. But, change has always been like that.

Today, change is special because we all are caught up in it—our institutions, our culture, our organizations, ourselves. This is what makes change so important and challenging a topic.

The following axiom has compelling importance to those of us who seek to help others guide organization change:

Any organization that is not changing at the same rate and in the same direction as the larger society is doomed to failure.

Organizations are extensions of their environment; they are not isolated from their surroundings. They are “open systems” and are potentially vulnerable to the whims of the marketplace, the forces of social responsiveness, the vicissitudes of the economy, and the platitudes and power of politics.

In addition to being victims of change, organizations are among the forces of change and the preservers of the status quo. That dichotomy presents an interesting dilemma, but one we must understand and help to reconcile.

Beckhard and Harris (1977) have sought to capture this dilemma through their end-state model (see Figure 1).

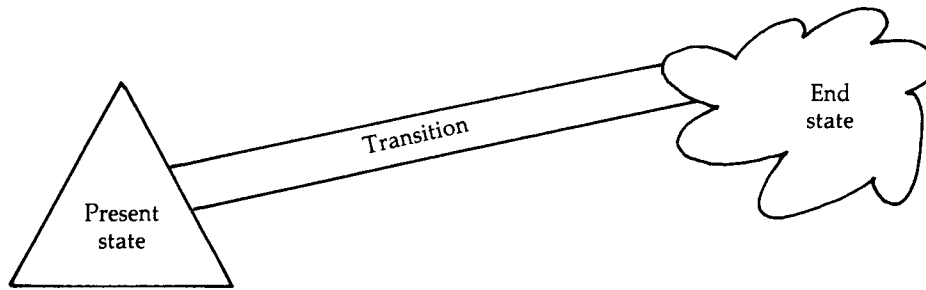
We must simultaneously manage the present state while systematically moving the organization toward its future state. The balance is not easy to accomplish.

The difficulty arises because the very people who shape the destinies of the organization may not have a clear vision or picture of what the end state should look like or how to achieve it. Many managers don't relate what they do in the short-term through the present organization to the process of transition and the nature of the long-term or desired end state.

As Ledford observed in an earlier chapter, elements within an organization must be congruent; they must fit together. Efforts to change the organization must also be congruent. Different improvement efforts must fit together, and the overall change strategy must be compatible with the organization's environment.

These notions of congruency are consistent with Beckhard and Harris' end-state model. Actions in the present must fit into a larger transition plan, and

Figure 1—End-state model



both must be appropriate to the desired characteristics of the future organization.

O'Toole (1985), depending on your perspective, either expands or elaborates Ledford's notion of congruency. According to O'Toole, exceptional organizations achieve a high level of symmetry. People within these organizations learn to balance the legitimate claims imposed on the organization by its stakeholders—its customers, suppliers, employees, shareholders, and community.

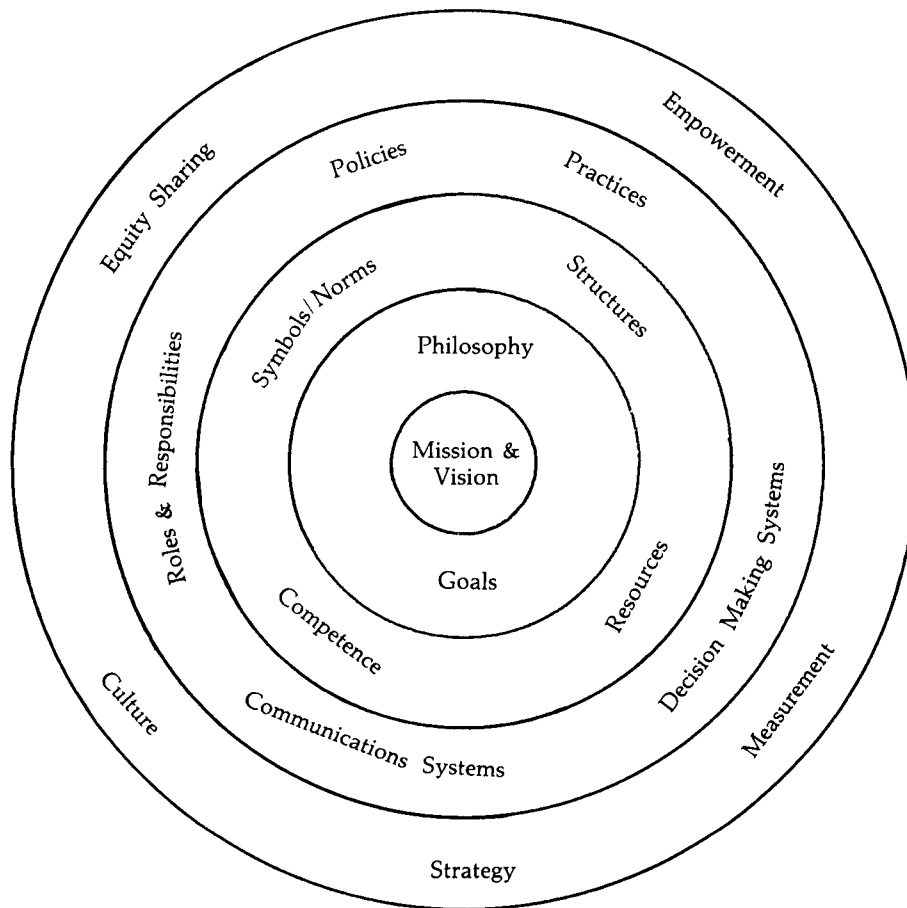
Both Ledford's concept of congruency and O'Toole's concept of symmetry are valid, and both are consistent with sociotechnical design principles and open-systems planning (Pasmore & Sherwood 1978). The axiom at the beginning of this chapter expresses a similar view.

The organization design process, shown in Figure 2, is one way to capture these similar concepts. Many organizations have used this model in their design and redesign. Underlying the model is the need for integrating all the design elements displayed. Because organizations are sociotechnical systems, each of the systems' elements must be compatible with all others. Most importantly, each element, as its final test of validity, must fit the organization's philosophy and goals. If any element is not compatible with the philosophy and goals, then it requires adjustment or elimination.

The organization design model, sometimes referred to as the "bull's eye," is also an effort to emphasize integrity—a concept similar to congruency and symmetry. All organizations set forth certain principles or policies. People both within and outside the organization recognize violations. When people see an organization espousing one principle or point of view but acting on another, the organization has violated its integrity. People then lose respect for the organization.

When people do not trust an organization or think that it cannot be counted on to act consistently with its pronouncements, the organization loses credibility. As integrity and credibility diminish, the organization becomes fragmented and less able to respond uniformly and consistently. This deteriorating process causes a segmentation of the organization within and a gradual separation of the organization from its environment. This is a

Figure 2—Organization design process



condition for failure. The organization has violated the axiom asserted earlier, the principles of congruency, and its own integrity.

Today's enterprise

Too many U.S. institutions are struggling to renew themselves. The forces of change are clashing with the forces of resistance. This struggle exists at many levels and takes many forms. Organization development literature is replete with examples of this struggle. General Foods and Proctor & Gamble provide two interesting examples.

The first large-scale introduction of sociotechnical principles took place in General Food's dog food plant in Topeka, Kansas (Walton 1978). Even during its early days, the Topeka plant performed well. Some 15 years later it continues to perform well. Based on the success of the original plant, General

Foods opened a new plant adjacent to the first. General Foods, however, fired the original plant's advocates and managers, all of whom were architects of the "Topeka story" along with Richard Walton. Apparently, in final frustration, General Foods then sold the plant. According to knowledgeable observers, General Foods management could never accept the innovative, forward-reaching design and operation of the Topeka plant. Regardless of the plant's well-documented higher performance, General Foods never recognized the plant as a potential organization model.

As a final note, the three inventors of the Topeka plant process are recognized authorities on the design and operation of model organizations: Edward Dulworth, vice president of manufacturing, Topps Chewing Gum; Lyman Ketchum, president of a highly successful consulting firm specializing in sociotechnical design; and Richard Walton, professor, Harvard Business School. Most recently, Quaker Foods acquired the Topeka plant. Quaker is an organization committed to a future strategy more akin to Proctor & Gamble's than to General Foods'.

The Proctor & Gamble story is quite different. In the early 1970s, sociotechnical systems (STS) principles were introduced by Charlie Krone into a new Proctor & Gamble plant in Parma, Ohio. The success of this plant has become a model for Proctor & Gamble. For the last 10 years, Proctor & Gamble has pursued the gradual redesign of all its plants along STS principles. The company's redesign strategy is as well-guarded a secret as its new product developments. Proctor & Gamble views these vanguard organizations as so vital to its future that they are not open to the public.

Many possible explanations exist as to why these two stories developed as they did. For our purpose, let the following points suffice:

- Organization development initiatives may start and produce valued results at any level.
- The successful diffusion of organization development initiatives demands an environment that supports those initiatives.
- Risk is involved for those who lead a change process.
- Large systems development best can be accomplished when it is an integral part of a larger business strategy.
- Successful and enduring outcomes are most likely when developmental strategies deal simultaneously with multiple elements and proceed along multiple developmental continua. (Landen and Landen 1985)

The concept of multiple continua

All organizations are sociotechnical systems. As such, they are conceived, designed, implemented, and managed based upon multiple elements: structure, style, processes, culture, people, and rewards. Using the McKinsey 7-S framework, the elements would be structure, strategy, systems, skill, style, staff, and superordinate goals (Pascale and Athos 1981).

In classical organizations, the structure is hierarchical, the style autocratic, the processes closed, the culture conservative, the people a variable cost, and

rewards granted more for loyalty and compliance than for performance. They meet the test of congruency. The pieces fit together.

As organizations have traditionally evolved, which by today's standards of change management has been quite slow, they have had to change in many ways. If they did not, the "change" didn't take.

For example, the huge investments made in human relations training for first-line supervisors never realized their potential. This failure occurred in large measure because the true practice of human relationships was either distorted to fit existing cultures or was never applied operationally.

The industrial landscape is peppered with similar failures, from actualization to "zero defects." Most early efforts at organization development were not inherently unsound. They simply violated the integrity of the organization. They sought to enrich jobs without enriching cultures or to practice participative problem solving under autocratic supervision. Some failed initiatives tried to achieve zero defects by extolling the virtues of pride in workmanship or attempted to manage by someone else's objectives. Others set out to achieve ownership by manipulation or build teamwork through competitive experiences and gamesmanship.

Kilmann (1984) tried to remedy this kind of inconsistency through his book *Beyond the Quick Fix*, which has been well-received by a limited number of people. The majority of "change" consultants, however, continue to sell their own quick fixes, whether they occur in a minute of time, a weekly circle meeting, an annual appraisal, or a five-year plan. Quick fixes all sound simple but are not, or purport to promote change, but do not say how. They all promise enduring results but cannot deliver, or visualize a brighter future but will not succeed.

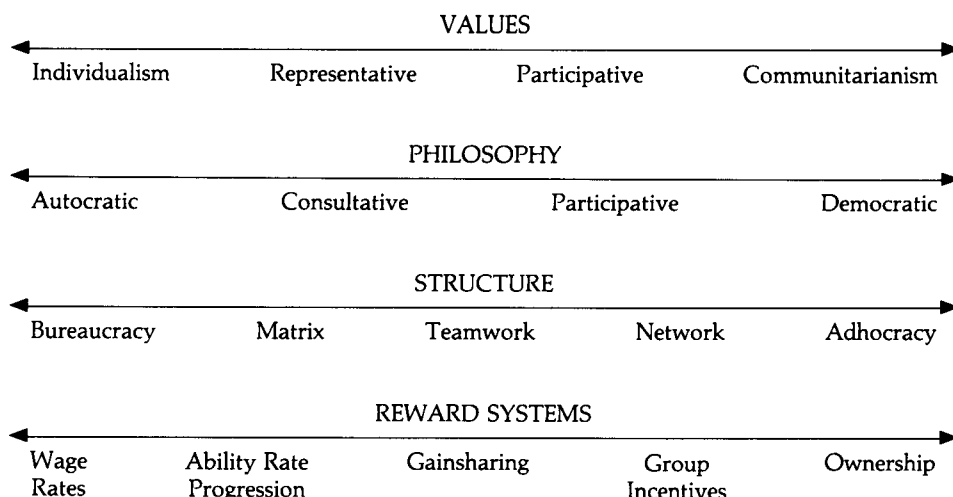
Development along multiple continua

One difficulty in many organized attempts to produce planned change is that the agents of change have limited understanding of the foundations of organizations and the processes of development. As noted earlier, McKinsey speaks of seven elements and Kilmann of five (culture, strategy/structure, management skills, teambuilding, and rewards). Whether we speak of seven or five elements is not the point. Both McKinsey and Kilmann recognize that to produce and sustain improvements, we must deal simultaneously with multiple dimensions. We must address the elements simultaneously because they are interdependent, and because this is the only way we can sustain improvements.

Human development and organization development are inexorably intertwined; one cannot occur in the absence of the other. Both are evolutionary and incremental; one phase builds off the preceding ones (Landen 1983a).

To examine this point further, we can look at four organization elements: values, philosophy, structures, and rewards. Figure 3 presents each element to help in visualizing the idea and in understanding how it may be applied, in essence, evolving from principles to practices.

Figure 3—Parallel continua



One may view the continua from left to right, the direction in which change is moving or development must occur. Another way of viewing the continua is across the four rather than along a single one.

Let me clarify. The political and social values of our society over the years have shifted from elitism, where only white males could vote and govern, to communitarianism, where the good of society transcends self-serving individualism (Naisbitt 1982). Naisbitt asserts that the substantial falling off of the percentage of eligible voters exercising their franchise (slightly over 50 percent in the 1984 national elections) is compensated for by the increasing number of efforts to pass laws or recall elected officials through referenda. This is a shift from representative to participatory government.

Looking across the continua, the philosophy that many organizations seek to develop is shifting toward participatory management. Therefore, the values we cherish and practice as citizens should be equally available to us in the institutions where we work and learn.

To further this line of reasoning, let us consider the structure continuum. Many organizations are introducing structural interventions, such as quality circles. The inability to sustain the same circles beyond a two- or three-year period is quite well known. The desirability of moving from weekly circle meetings to a culture of teamwork, however, is not well recognized or accepted (Landen 1983b). Yet, that should be our strategy. But to accomplish this transition, we must make equal progress along both the philosophy and reward continua.

Sustaining the efficacy of quality circles requires an environment that is participative in style and that recognizes and rewards collective effectiveness. These two qualities are essential to teamwork. If we are to transfer par-

ticipatory values and skills beyond quality circles, organizational culture must foster and reward cooperation, mutuality of purpose, and team accountability. The process of developing the organization and its members must move along the continua together.

The same point from another view

Many organizations today are introducing some form of gainsharing. In many instances, the motivation for implementing a new approach to sharing the economic fruits of an enterprise is to encourage a greater flow of usable ideas from the workforce. In some cases, gainsharing efforts represent little more than glorified suggestion programs. When this is their limit, their contributions to the organization and its members are marginal.

By contrast, a gainsharing plan that is coupled with other organizational advances, such as participatory management and group problem-solving, significantly enhances overall operating performance and worker satisfaction (Lawler 1986). Pushing the boundaries of the organization along three continua simultaneously produces a far greater effect than attempting to progress along a single continuum, irrespective of which one it may be.

Using multiple continua to build a conceptual model

Ackoff (1981) has repeatedly made the point that one of our major impediments to designing more effective organizations is that too many of us lack the ability to synthesize ideas. Much of our education is directed toward analysis or taking apart the whole. In the physical sciences, analysis is sometimes the only way we can understand the whole. In the human sciences, this is less true. Certainly, taking apart an interconnected human organization does not always add to our understanding of the whole. As we know too well, the whole of an organization is much more than merely the sum of its parts. Just as humans are only humans when all of their parts and systems are appropriately interconnected, an organization is an organization only when all of its parts and systems are appropriately interconnected.

Thinking systemically is not always easy. When we lack the means of organizing ideas into meaningful frameworks, systematic thinking is more difficult. Creating conceptual models that synthesize apparently dissimilar ideas is a useful way of exploring how the parts of the whole interact and how the whole is shaped from the interplay of the parts—a reaffirmation of the principle of congruency.

Figure 4 shows one way in which the interrelations of two dimensions—philosophy and structure—can relate to a third continuum—attitudes.

Our attitudes are a product of the environment in which we grow up and live. When we enter the world of work, we bring with us the totality of our personalities, including our values, biases, and beliefs.

Once in the workplace, we interact with that environment. The interaction affects our attitudes both positively and negatively, and in turn affects our behavior or performance both positively and negatively.

Figure 4—Relationship among philosophy, structure and employee attitudes

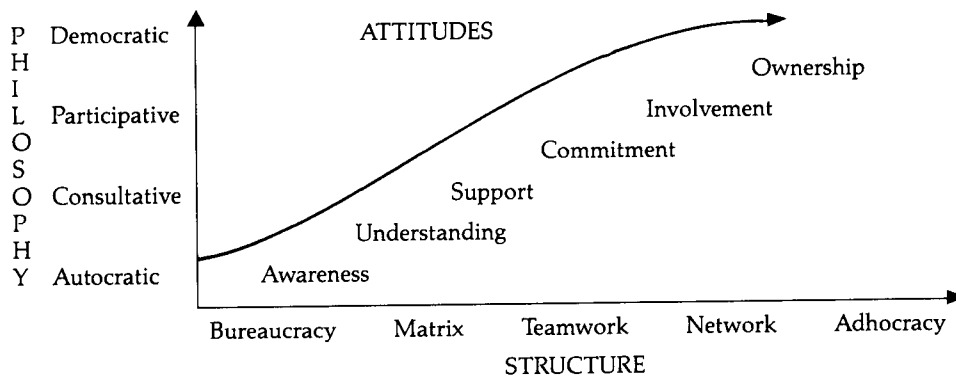


Figure 4 seeks to convey this dual impact of structure and philosophy on attitude development. As the model shows, attitude development is a learning process that evolves from awareness to ownership. If an organization, for example, hopes to gain the commitment of its members, the philosophy of management must be fully participative and the structure of the organization advanced beyond teams into a network that constitutes a loose arrangement of interaction and reporting relations.

A high level of personal accountability (i.e., ownership for one's decisions and deeds) is a mature state of development not easily achieved. Becoming accountable requires a culture that is highly democratic, both substantively and symbolically, and an organizational form that enables people to organize continuously and reorganize themselves around tasks, issues, and goals.

Adhocracies, as Toffler (1970) noted in *Future Shock*, are temporary work arrangements set up to accomplish a particular task or attain a specific goal. Once the group attains its goal, the work group is dissolved. In this structure, an individual could belong to several work groups at the same time. One's roles and responsibilities would vary with the nature of the task, the competence one brings to the task, and the democratic options for leading and following.

Such work arrangements in today's organizations are rare, but they do exist, usually in the form of committees, task forces, special assignments, or temporary projects. Each form parallels a structure operating outside of the formal organization and governed more democratically than traditional organization structures.

In Figure 4, the arrows at the end of each axis and at the peak of the learning curve suggest that the end points of this model are unknown. Our

thinking about organization behavior has developed quite extensively over the last few decades. If it continues to expand, the nature of organization development will be fundamentally different in 20 to 30 years.

The vertical axis on the right of the model in Figure 4 could represent increasing levels of quality, productivity, and quality of work life. We would expect, based on experience and the research cited by Ledford, that as organizations evolve toward higher states of commitment, involvement, and ownership, organization and human performance will increase. Based on this reasoning and drawing on our current understanding of organization behavior, the highest levels of organization and human attainment will occur when our work institutions embody democratic values and flexible work arrangements. Then, our organizations' cultures will nurture the human spirit and elevate people to the highest levels of responsibility and empowerment.

Organization development and the practitioner

Every member of an organization is responsible for its development. The future of U.S. business cannot be left to chance. Every institution exists for a reason. As OD professionals, we must help ensure that each institution accomplishes its mission.

Students of social and behavioral sciences have a variety of roles to perform in organizations. They may be teachers, coaches, advisors, counselors, leaders, and role models. Performing any of these roles is a demanding challenge. Performing all of them wisely and well is a calling that exceeds the imagination of many and the talents of all but a few. Those who seek to guide others in their quest for achieving higher standards of organization, performance must possess a vision of what must be and the courage to guide others into unexplored areas and along unwalked pathways. This task is for neither the pure idealist nor the pure pragmatist. The future is forged from a blend of ideas and practice.

Walt Disney said, "If you can dream it, you can do it." This is a profound statement, for surely our dreams represent the best of our thinking. But dreams without deeds are more fantasy than reality. To grow, we must have a vision of what we want to become, an understanding of how to become it, and the wisdom and will to live our lives so that the vision is our reality. That is how we develop; that is how organizations develop. We must impose upon our institutions the same qualities that shape the character of human existence. Our institutions must represent an extension of the best of what we have, and we an extension of the best of what they possess.

Our success as a nation depends on our citizens' ability to elevate everyone's quality of life to standards not yet attained. The success of our institutions depends on our ability to elevate the quality of their accomplishments to levels not yet attained. The quality of our lives at work is linked to the quality of our society and to its institutions. Achieving this balance, this symmetry, must be our goal.

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Organization Development and the Pursuit of Quality: A Practitioner's View

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At the heart and soul of any organization is its ability to produce a product or service in a quality manner so that it best meets the needs of its customers. This is as true of a manufacturing organization as it is of a service organization, a volunteer agency, a college, a hospital, or the government. The logic seems to follow that the acid test for the organization development profession is how well it can help organizations improve their ability to meet these needs. Further, in the private sector, United States industry clearly has had trouble meeting the requirements of its customers during the last three decades. Perhaps nowhere is this more pronounced than in quality and productivity.

During the last 30 years, Japanese productivity has improved four times faster than that of the United States. In fact, the U.S. has trailed every major industrial nation in the area of productivity improvement during that period (U.S. Bureau of Labor Statistics 1985). Even the United Kingdom, a nation whose industrial decline has been widely publicized in recent years, has made greater improvements in productivity than the United States. The United States is still the most productive nation in the world, but the advantage it holds is shrinking at an ever-increasing rate. If current trends continue, Japan may surpass the United States as the world's productivity leader before the end of this decade.

Direct comparisons between nations in terms of quality, however, are difficult. Clearly, though Japanese, and not United States, products have established the world's quality standards. A division manufacturing manager I know constantly challenges the assemblers in his organization to put "Japanese quality" into the products they build. Similarly, a friend who recently purchased a new television set explained that he knew it would be a quality product because, "even though it's sold under the name of an American company, it's manufactured in Japan."

If we accept the premise that the quality and productivity of United States industry are in dire straits, is there then a role for OD in helping turn the tide? Can the application of organization development knowledge, principles, and values play a significant part in helping stop the erosion of United States quality and productivity? Based on my experiences as a member of an

organization development group with a *Fortune* 500 high-tech company, the answer seems to be a definite “maybe.”

With experience, I have come to recognize that the success of any intervention is contingent on many factors, of which only a handful truly can be managed. During the course of any change effort, there is always the possibility that something out of left field will drop in unexpectedly, sending months—maybe even years—of work into a frightening spin. One key is to be prepared for the unexpected, to have the flexibility to adapt at a moment’s notice. Another key is to set up the intervention correctly on the front end to minimize disastrous contingencies before the formal phase of the change effort even begins. In other words, hedge your bet a little; put in place the “stuff” that will increase the likelihood of success.

The actual, measurable impact of interventions on quality and productivity falls into two clear and distinct camps: successes and disasters. There seems to be no middle ground. Some distinct patterns, however, convince me that an OD intervention can have a better chance of success than a Las Vegas craps shoot. In other words, the successful interventions had several key elements that were clearly lacking when the outcomes were disastrous. These elements constitute the essential prerequisites for introducing the kinds of organizational change that can have a positive impact on quality and productivity. With them in place, the likelihood of the intervention’s success goes up significantly. These key elements are effective timing, strong leadership support, being process- rather than program-oriented, and utilizing lead systems. Each will be explored in more detail.

Effective timing

If people in the organization do not think change toward an improved state of effectiveness is important, then the change probably will not gain the kind of support and energy it needs to be successful. Successful change requires a high level of felt need and a strong commitment to action within the organization. If the general feeling is, “If it ain’t broke, don’t fix it,” then the timing for the change effort is probably not right.

I once spent several weeks helping a manufacturing manager develop a plan to increase employee involvement and responsibility for work design and quality and productivity. When the project was well underway, she came to me and said she wanted to put the whole thing on hold.

“Why in the world would you want to do that?” I asked, stunned.

“Because the timing just isn’t right. I simply don’t have the management team in place that I need to pull this off,” she explained.

I figured at that point she had given up on the entire concept of employee involvement and was using the “management team” excuse to back down quietly from the project. After nearly six months of not hearing from her, I was convinced that she had terminated the project. Then suddenly, unexpectedly, she appeared in my office. Her first words were, “It’s time.”

In retrospect, my client was right. If we had attempted the change effort

before she had developed full confidence in her management team, the intervention might have ended up a disaster. In this case, the manager's felt need for change was very high, but her staff didn't share her perspective. She wisely recognized that nothing would come of any change effort without her staff's commitment and support. So instead of proceeding with our carefully designed plan, she concentrated on gaining the support and commitment of her staff. The dedication and enthusiasm she was able to create later proved invaluable during the implementation phase.

Knowing when the timing is right is critical in ensuring the success of an intervention. Unfortunately, knowing exactly when it's time is probably more an art than a science. Often it's a "gut feeling" that says there are enough people in the organization ready to focus their energy on making change happen. This is sometimes referred to as achieving "critical mass." Typically, an organization reaches critical mass when the majority of key players are dissatisfied with the current state of effectiveness and share the common belief that there is a better alternative. Then the time for change is ripe.

On a macro scale, United States industry has lost much of its worldwide clout. Its products in many areas are second rate compared to their Japanese and West German counterparts. For competitive reasons alone, many United States executives are highly dissatisfied with the current state of affairs. Perhaps never before in the history of the United States has there been such a significant effort to revitalize industry. Most managers today recognize the seriousness of the competitive environment and are convinced that something radical must be done.

While dissatisfaction with United States manufacturing performance is high, no widespread consensus exists on what the alternative looks like. Some companies are addressing the quality and productivity gap by aggressively pursuing automation, while others are focusing more on specific management programs such as quality circles.

Quality and productivity need to be tied directly to overall organizational effectiveness. But few share with me this perspective. Most changes I hear or read about tend to be programmatic and somewhat superficial in nature; they do little to change the fundamental ways an organization operates. Here, the role of organization development practitioners can be significant. They can help managers think through and define the desired future state of the organization. The model that emerges serves two important functions. First, it helps clarify direction and focus management attention and energy. Second, the model helps motivate people, since there is now a clearly defined alternative to the dissatisfaction they currently feel.

The key point to this discussion is that the timing of an intervention focused on improving quality and productivity is an important consideration in determining if the change effort will succeed. We have no clear way of ever knowing for certain that the time is right. However, if there is a high level of felt need for change (generally expressed as a high level of dissatisfaction with the organization's current performance) and a clearly defined alternative (generally expressed as the desired future state), then chances are

excellent that the organization will have the necessary attention and energy for a successful change effort.

Leadership support

I recently attended a reception at which some of the most prominent members of the organization development field were present. During the course of the evening, I quietly made my way to one of these “heavyweights” and initiated a conversation. As we began engaging in small talk, I slipped in the question, “What direction do you hope to see organization development go in the future?”

Without blinking an eye, as if he were reciting a line in a well-rehearsed play, he said, “I hope it goes into the soup.”

I was shocked. One of the founders of organization development, whose numerous books and articles on OD could practically fill a library, said that he hoped the entire profession would go “into the soup.” It just didn’t make any sense.

As he began explaining his views in detail, a clearer picture emerged. He believed that organization development had become a staff function in most organizations, often far removed from the key management team. He believed that very little significant organization change could be accomplished without access to top management.

He continued, “Far too many OD practitioners are ‘staff wimps’ who know a lot about how to process issues but very little about management concerns. In the extreme, they don’t even know how to associate with line managers and, as a result, have little legitimacy with the very client group they should be supporting. We’d be better off if a whole new field emerged that didn’t have all the negative baggage that OD has wrapped around it’s neck. Then, maybe, we could get on with the business of organization change.”

Although I would hate to see OD end up in the “soup,” I found myself agreeing with many of the points he had raised. All practitioners need to be aware of and concerned with top management support. If the practitioner does not have access to the key leaders in the organization, then any change effort will have severe limits on how far it can go and how much support it will receive. Admittedly, some very good examples of “bottom-up” change efforts have occurred in a variety of organizational settings. These, however, are clearly the exceptions rather than the rule.

The need for strong leadership support is especially important in change efforts focused on enhancing productivity and the quality of goods and services that an organization produces. Significant quality and productivity improvements usually require a high level of coordination among several different departments (for example, manufacturing, purchasing, materials, and engineering). If top management is not clearly supporting change, then the various department heads often have little motivation to take their respective units through the stress that accompanies significant change in systems and processes.

An OD practitioner recently decided to quit working with a division of a major high-tech firm after nearly three years of involvement in a significant change effort. When I asked him about his decision, he explained that a lot of it was just plain frustration. He went on: "While I was working with this group, it seemed like the entire management team turned over every few months; the ground shook with instability. Every time we'd get a transition plan in place, somebody else would walk through the revolving door and we'd be starting from scratch again. When we finally did change some things in manufacturing, the group never got the necessary support they needed to be successful."

In this case, the change effort, which was intended to improve the manufacturing performance of the division, had no positive impact. The overall quality and productivity performance remained unchanged after three years of effort. The reason is clear. Support from the key leaders in the organization became impossible because of rapid turnover. Without their long-term commitment to the change process, the whole effort was put in a strangle hold.

When I compare the difficulties encountered in that organization to one of the more successful change efforts I've seen, sharp contrasts emerge. In one successful example, the general manager took the role of champion for the cause of quality. During his first day on the job, he moved his predecessor's desk, located in a spacious corner office, to a spot out in the middle of the manufacturing area. Daily, he started wandering through the plant espousing his rather simplistic management philosophy to whomever he might meet: "If you think there's something more important than the customer, think again!" Soon after, he started making a series of presentations demonstrating the relationship between quality and improved yield performance. He started "sack-lunch Wednesdays" where he would invite workers to join him for informal discussions about the performance of the division. One day, after several weeks of growing frustration with the physical appearance of the manufacturing area, he appeared with a toothbrush in his hand. "How can people do quality work in all this filth?" he said as he began brushing the wall. "Dirt and clutter create a mindset that quality is somehow unimportant." More recently, he has started sending his managers into the work stations of the division's customers. His belief is that by having his managers experience the product from the customer's perspective, they will develop an entirely new appreciation for the importance of quality and reliability.

The actions of the general manager made very clear to everyone in the organization the importance he placed on quality. He helped create an environment where the follow-up training in quality and employee involvement were well received and quickly assimilated. This kind of dedicated support by top management is, in my experience, all too rare. And the irony is that it can have such a profound and immediate impact.

The importance of top management support cannot be overemphasized. It is an essential prerequisite in achieving the kind of systemic change required to improve an organization's quality and productivity performance.

Process rather than program oriented

Most managers dream about the quick fix, the instant solution to organization woes. The very language of many managers ("I want it fixed yesterday") often reeks of immediacy and instant change. Unlike instant cocoa and freeze-dried food, one can't just add water to organizations. Yet the desire for the quick fix—the desire to install the perfect program that will right all past wrongs—persists.

United States corporations spend more money today on education than does the entire public educational system. But, much of that money is not improving the performance of the organizations that are bearing the expense. Too much is spent on quick-fix programs that soon fall short of management's expectations and are abandoned as fast as they are introduced.

One company I observed is a prime example. In the face of eroding quality, the company introduced a quality circle program. The company aggressively hired a QC coordinator and a host of full-time facilitators. A year after the company formed the first circle, over 200 circles were operating throughout the corporation. Top management applauded the effort, and many saw the overall program as a great success. The following year, the number of active circles dropped dramatically. Three years after the program had begun only a handful of quality circles still met on a regular basis. Top management no longer talked about the program.

Programs that do not become part of the cultural fabric of the organization ultimately fail. They may show some short-term gains but often end up as long-term disasters. For organizations to sustain change over the long-term, they must focus on the process through which the change initially occurs and then is renewed through time, rather than on the program.

In Japan recently, I visited a very successful high-tech company. While touring its manufacturing plant, I explored its approach to quality circles. I was flabbergasted. Not only were quality circles alive and well in this company, but they were producing, on average, better than 400 quality improvement ideas in their 200-person manufacturing area each month. (It's probably worth noting that this kind of performance is really middle-of-the-road by Japanese standards. Some of the "top-performing" Japanese companies proudly boast that they receive more than 500 improvement ideas per employee per year, nearly 90% of which they implement.)

What is special about the approach of this Japanese firm? First, and perhaps foremost, quality circles began as a way to manage quality problems more effectively within the organization and soon became part of the way business was conducted there. From the very start, the top management team was involved in forming the circles. The management team was held accountable for ensuring the long-term success of the circles. The managers, themselves, spent a lot of time communicating to the workforce the nature and severity of the quality problem the organization faced and how quality circles could, with the necessary support, significantly help improve overall quality performance. Managers introduced systems that helped to institu-

tionalize and further the change, such as an annual banquet, attended by the president and his staff, where each circle presents its key accomplishments for the year. Further, weekly updates (showing the status of various QC projects) are posted on a bulletin board. By being "process wise," the Japanese management team implemented a change that has become part of the way things are done in the organization.

In the first example, the opposite occurred. A program was introduced without a clear sense of process. No individual or group of individuals had any clear accountability for sustaining the effort or attempting to improve its effectiveness through time. Top management took a "let's wait and see" approach. Employees soon sensed management's lack of total commitment, and the effort immediately began losing its momentum. When the program came upon sterile ground, there was simply no commitment to revitalize it.

Managers frequently become cynical about quality and productivity programs. They have seen so many programs come and go that they talk about each new one as the next "program of the month." If you wait around for several weeks, a new one will arrive on your doorstep—whether or not you want it or need it. The next new program comes like clockwork. These same managers are then expected to support the latest "program of the month." In such an environment, managers often have no motivation to exert the kind of energy needed to make effective change. Many managers react by simply ignoring the directive and waiting until the latest "fad" goes away.

By contrast, if the effort to improve quality and productivity is process oriented—where the seriousness of management's intent is evident in changes in their behavior as well as changes in various systems that will reinforce the change—then the likelihood of longer-term success is far more real. I call this the commitment by management to "walk their talk." Flashy programs can be (and often are) introduced without any fundamental changes from the way the organization has operated in the past. This is why the "program of the month" phenomenon is so prevalent. It is a safe and easy way to appear to be changing for the better without experiencing any of the risks associated with significant change. Instead, if management makes a long term commitment to a process of quality and productivity improvement by fundamentally changing the way the organization operates, it takes a true, although difficult, improvement course.

Utilizing lead systems

Within an organization's various systems, the change effort must begin somewhere. The term *lead system* refers to the first system deliberately chosen for change. Academics often debate over which systems should be changed first or even if the whole notion of "lead" and "lag" systems is useful. As a practitioner, I have found that the concept is useful and have come to believe that there is a sequence of system changes that, when followed, greatly strengthens the implementation of the overall organization change.

The first system in the sequence is the information system. This system serves as the pathway to place the critical information necessary to run the organization in the hands of decision makers. In most organizations, the information system is structured so that information goes up the management chain where decisions are made. Then, management passes the decisions down to lower levels for implementation. For the sake of simplicity, I call this type of information flow the "elevator approach," since information goes up and decisions come down.

The elevator approach has some inherent problems if the goal of management is to increase employee involvement in identifying and correcting quality and productivity problems. First, since the direction of the flow of information is upward, the people actually building the product or providing the service may not even realize that there is a quality or productivity problem. This phenomenon is not as uncommon as most managers would like to think. In one organization with which I worked, many people didn't even know the purpose of the product they were building, let alone what the customer's expectations of it were!

One of the principles of socio-technical design, as defined by Albert Cherns (1976, 1987), is that information should go to the source of direct action. In other words, decision makers and implementors should be the same people. This approach to information requires a far more open environment than that to which many executives are accustomed. In one case (during regularly scheduled assemblies), a division vice president started showing workers quality and productivity figures, the monthly income statement, and new-product strategies. His disclosure of this "sacred" information shocked his peers in the corporation. Despite their fears and comments, that by sharing such information he was somehow "compromising the company's competitive position," he continued this activity. Soon, within the same division, he instituted a drive to minimize inspection and to build product quality in at the source. Information was redirected; daily updates of outgoing quality, productivity, and key problems that employees had identified the previous day were posted in the manufacturing area.

The vice president had, in effect, developed a new system for sharing information; we might call it the "sunrise approach," since like rays of sun spreading across the horizon, everyone in the organization—not just a few top level managers—was privy to key business information. This change had a significant impact on the performance of the organization. People who formerly knew very little about the product, let alone the intricacies of the business, now were personally committed to the success of the organization. They began to feel and act like business partners rather than see themselves as mere cogs in a great organizational wheel.

Changing the information system from the elevator approach to an open, free flow of information can begin in four steps. The first is for top management to begin communicating, in a very open manner, the current performance of the organization. Top management should convey this information at least once a month and to all employees on a voluntary basis. The second

step is to begin educating the workforce about the product or service the organization provides and its key customers and key competitors. The third step is providing daily information about quality, productivity performance, and key problems to those actually building the product or providing the service. The fourth step is formation and use of problem-solving teams to address quality issues as they arise on the line. These teams need to comprise a combination of technical experts and people with hands-on experience in building the product or providing the service.

As the formation of problem-solving teams begins, consider the next system to be changed: work design. Traditionally, work was designed by engineers who were often isolated from the realities of the shop floor. Typically, work designs reflected the “technological imperative”; the industrial engineer focused almost exclusively on how to maximize the effectiveness of the technology, with little or no regard for the psychological impact of the design on the worker who would actually be performing the task.

One day in a manufacturing firm, an engineer showed up with a sophisticated-looking piece of machinery. The manager of the group explained that several of the workers would be using the machine to rivet metal leads into a ceramic disk, an operation they had previously done by hand. Each of the excited workers wanted to be the first to try out the new “toy.”

Using the machine required several manual steps to prepare the disk before the machine automatically put in the rivet. This preparation was very simple and highly repetitious. One person might spend an entire day loading the ceramic disks onto the machine while another placed the metal leads. The work was so tedious and boring that everyone in the group soon resented working on the new riveting machine. After several weeks, the productivity figures showed that the group was consistently 50 percent less productive using the machine than when it had been doing the same operation by hand. In addition, the level of quality was also significantly lower. The engineer reappeared in the work area after about a month. Looking disgusted, he said, “I don’t know what’s going wrong here; our figures showed you’d get four times the output you claim to be getting. It just can’t be!”

After some modifications, more tests, and the same results, the \$20,000 machine was quietly retired to a back corner of the manufacturing area.

For work design to be most effective, those actually performing the work need to be directly involved in its design and redesign. Although industrial engineers should not be taken out of the work design process, they should work in close teams with those performing the work. Then, the outcome of the work design effort can be the creation of a process that best marries the capabilities and needs of the individual and the technology.

This concept is hardly new. Eric Trist first demonstrated the relationship between socio-technical work designs and improved quality and productivity performance back in the 1950s (Trist and Bamforth 1951). Unfortunately, U.S. companies—with a few notable exceptions—still do not commonly practice this approach to work design. Companies that have successfully applied these principles typically demonstrate performance that is signifi-

cantly better than comparable organizations in the same or related industries that are still using traditional approaches to work design (Trist 1981; Pasmore 1982; Weisbord 1985).

Obviously, this type of change requires a tremendous amount of training support. For line operators, training in areas such as communication skills, problem solving, holding effective meetings, conflict resolution, work redesign methods, teamwork, consensus decision making, customer awareness, and quality improvement techniques becomes essential. The amount of training required for managers is equally dramatic and includes facilitation, interpersonal and training skills, longer-term planning, leadership development, and increased business knowledge.

Once information is accessible throughout the organization and new, participative work design practices have emerged, changing the pay system then becomes important. Some may argue that I've got this all backward, that the pay system should be the first thing changed so that it helps reinforce the changes in the other systems. There is logic to this argument. Behavioral psychology has clearly demonstrated that the careful manipulation of reinforcement patterns can significantly alter behavior. Some "organizational realities," however, make changes in the pay system particularly difficult and have convinced me that it is far better to approach pay as the "lag-behind," rather than the "lead-in," system.

Three phenomena have led me to this conclusion. First, a tremendous amount of change in the information system and work design practices can occur without any significant changes in the pay system. Second, it is difficult to develop a compensation system that will reinforce work design practices that the organization has not yet implemented. Finally, gaining the necessary support from the compensation department for major changes in the pay system is far easier if it can be demonstrated that individuals' jobs have changed.

This last observation is perhaps the most important to consider. Compensation is typically the sacred cow of the organization and often the most difficult system to change. Compensation is usually protected by systems and processes that try to ensure equity in pay practices both within the company and across the industry. In large companies this becomes a particularly important function of the compensation department. Most compensation departments have very sophisticated controls (such as narrowly focused job descriptions, the numerical valuing of jobs, and the use of pay surveys) to maintain this equity. Compensation changes that deviate from these mechanisms (such as "generic" job descriptions or knowledge-based pay schemes) are viewed with great suspicion and apprehension. Without a demonstration that the nature of the work has changed, typically, little or no motivation exists to change the compensation system. Thus, "political reality" clearly suggests the importance of addressing the other systems first.

The newly developed pay system must reinforce the changes in the information system and work design practices. Therefore, it should promote an open work environment, the free sharing of ideas, teamwork, the continual

development of new skill sets and expertise, resourcefulness, dependability, and self-management.

The concept of lead and lag systems can be extremely useful in quality and productivity improvement efforts. It helps identify the place to start and provides a natural path to follow during the course of the change effort. I recognize, however, that it is not always practical or in the best interest of the practitioner and client to follow the sequence I have just outlined. As a colleague in the field put it, "Lead systems would be all right if the world were a perfect place. For me, well, I just try to get entry into the organization wherever I can, and then do whatever seems to make sense. Sometimes it even works!"

Conclusion

Earlier, I stated that change efforts of this sort tend to be either successes or disasters. For the sake of ending this paper on an optimistic note, I'll briefly describe some of the improvements and "bottom-line" results I've seen in one of the success stories.

In this particular manufacturing group of 150 employees, outgoing quality levels had dropped considerably in recent years. Once the industry leader in quality, the group was facing the harsh reality that it was now in the middle of the pack. Virtually every product had to go through a "re-work loop" and several inspection stations before it could be shipped to customers. In addition, work-in-process levels were high, which slowed problem identification and resolution. Finally, for the first time in the company's history, foreign competition was challenging its market dominance.

A new management team entered with very strong convictions about "just-in-time" (JIT) manufacturing techniques and employee involvement. An OD practitioner worked with this group to help formulate an initial strategy for the change effort. Some of the early work included monthly division-wide meetings in which the nature of the changes were outlined in detail to all employees. In addition, during the meetings the top management team described to the workforce the importance of the change they were advocating. For example, management explained that competitive data made it clear that "business as usual" was not going to meet the challenges that the company now faced.

As the transition toward JIT began, management put into play some significant work redesign practices. Those employees who were actually responsible for building the product worked directly with management representatives and an industrial engineer to redesign the work flow. Soon after the work redesign effort, training began to help managers, professionals, and associates more fully understand the nature of employee involvement and how work roles would need to change in this new environment. As the managers' new role became clearer, specific training that focused on facilitation skills, group dynamics, effective coaching and leadership was developed and implemented. Managers also began conducting additional

training in their respective groups on problem-solving techniques such as brainstorming, "fishbone" analysis, and Pareto charting.

The next phase of the change effort focused on altering the compensation system. This included new performance evaluation criteria that promoted problem solving, skill development, and teamwork; "generic" job descriptions that encouraged cross-training and flexibility; and a new salary administration process that expanded the pay opportunity for top performing employees.

The results of this effort were impressive, to say the least. First-pass quality rates went from 75 percent to better than 95 percent. The rework loop and the inspection stations were eliminated. Productivity increased (to a large extent as a result of the quality improvements) and the work-in-process level dropped by 50 percent.

The long-term success of any change effort is related to how deeply it becomes part of the organization's cultural fabric. If a major thrust to improve quality and productivity is not part of larger, organization-wide change, then the systems and processes necessary to ensure the long-term success of the effort will not develop. Simply, quality and productivity improvements must be thought of as part of a systemic change effort that may, ultimately, create an organization fundamentally different from earlier versions of itself. The prerequisites I have outlined can help practitioners begin this kind of systemic change.

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Quality, Productivity, and Ethics: The OD Practitioner as Moral Educator

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The OD practitioner is concerned for the culture of the workplace, including the values, beliefs, attitudes, relationships, and behaviors of the employees. As the person responsible for managing change in that culture, the OD practitioner may be the most important person in an organization's efforts to improve quality and productivity. The OD portfolio includes both the people and the product. The role of the OD practitioner is that of the linking pin between the "soft" (people) and "hard" (production) sides of business, for both "soft" (ethical) and "hard" (bottom-line) reasons.

Managers may be well acquainted with and experience a great deal of pressure regarding the bottom-line issues; they may or may not have clear ethical rationales for their behaviors and decisions. They may or may not care about the moral implications of the relationship between production and people and among their employees. As one associate dean of the Harvard Business School said, "We've gotten out of the practice of talking about values here, because there's been so much emphasis on the mechanics of business in the course content. We've made some changes, but there are going to be a lot more" (Beam 1987). By definition, OD is concerned with those values. Quality and productivity are areas that involve considerable ethical decision making, and it is the OD practitioner who has the legitimate right to raise questions about those ethical issues.

Peters and Austin (1985, 101) stress that "quality is not a technique"; it is "a commitment by management to its people and product—stretching over a period of decades and lived with persistence and passion—that is unknown in most organizations today." The ethical dimensions are twofold. First, they lie in the connection between the people (workers) and the product (goods or services). How are people treated in the workplace? What types of attitudes, methods, and words are used in the effort to increase productivity? What kinds of relationships, behaviors, attitudes, and beliefs does this organization's culture foster? Second, ethical issues arise in the connection between the organization and its customers. What kind of quality is the organization selling? What values does it express in its concern for—or lack of—quality?

What does ethics have to do with it?

The concern for others is an ethical concern. Ethical analysis is concerned

with what is “right,” which includes enhancing the well-being and developing the personhood of individuals because of their intrinsic moral worth as human beings. It is about moral behaviors in the widest sense, including an array of issues in the workplace, from broad brushstrokes covering corporate policy to the daily treatment of the file clerks and errand-runners.

First, it is ethical to treat employees well and humanely. The OD literature abounds with discussions of worker motivation, satisfiers and dissatisfiers, quality of work life, etc. While the direct connection between these concerns and output or profits may not be clear, the literature implies that these issues eventually affect the bottom line, perhaps through the reduction of turnover or the increase of employee loyalty. It may be time for the culture guardians, the OD people, to declare that an equally compelling reason for treating employees well and respecting their dignity is that it is the right thing to do.

Traditionally, OD has tried to connect the people and the production process through participative mechanisms such as quality circles, in which the involvement of employees in planning and decision making is expected (or hoped) to improve quality and productivity. The arguments in favor of implementing such mechanisms are sometimes “soft” arguments, coming from the quality of work life point of view, and sometimes “hard” arguments, coming from the cost-benefit analysis point of view. Both arguments are valuable. Even the Deming approach stresses the importance of input from the production worker in revising the production process to increase both quality and productivity.

Deming’s approach to quality and productivity focuses on completing work correctly the first time, eliminating rework and minimizing scrap, and management’s continually revising the process (with the help of input from workers). These are essentially bottom-line arguments—that is, it costs more to recall and fix defectives than it does to adjust the process to guarantee high-quality outputs. But Deming’s theory contains a strong ethical element. He uses words such as “constancy of purpose,” “leadership,” “driving out fear,” “removing barriers,” “pride of workmanship,” and “self-improvement.” He stresses continual feedback on performance to employees rather than annual ratings. And, obviously, an organization is treating the customers more ethically when it provides them with a high-quality product the first time, and when the customers get what they pay for.

The ethical point of view is that people need and have the right to develop a relationship with the process and with their co-workers that respects the unique contributions they can make. The key idea is Ledford’s “congruence,” which he defines as fit or consistency. Workers experience congruence when their work-related moral standards (e.g., how one should be treated at work, and what quality and depth of effort one should exert in the work process) match the organization’s moral standards (e.g., whether it treats employees with respect, invites their participation, compensates them well, and expects both a quality product and high productivity). Workers who take pride in what they do experience moral incongruence when the company is content to sell slipshod products or services. Organizations that expect high-quality out-

puts must require high-quality inputs (including labor). Ethical congruence requires that organizations do all this, and treat their employees humanely and in ways that enhance their personhood. Karl Marx understood the importance of the ethical relationship between the person and production (Aron 1968). The whole thrust of gaining worker control over the means of production was to personalize the process and increase workers' psychological as well as economic investment in the tasks they were doing.

Peters and Austin (1985) devote a whole chapter to this concept of ownership. The issues involved in employee ownership include pride, respect, the upward communication of information and ideas, commitment, decentralized decision making, teamwork, and trust. All of these concepts involve the notion of the importance of the individual. Ownership is, at heart, an ethical concern. Quality issues in production are also ethical issues. It is morally right to deliver to customers the goods or services they have paid for, with quality standards that may be explicit (e.g., Sears markets many grades of products as "good," "better," and "best") or implicit (customers should be able to expect even inexpensive washing machines to clean their clothes safely). Corporations, and ultimately the U.S. economy, suffer when they receive defective goods from their suppliers. Because some companies have ignored this moral imperative, the United States has enacted consumer protection laws.

Putting wheels under the ethical concern

The treatment of the worker and the customer are two moral issues that relate directly to quality and productivity issues. An example of an ethical perspective on worker supervision is the relationship between performance appraisals and quality or productivity. Any worker knows, from an experiential point of view, that an on-the-spot discussion of performance problems is more morally (as well as practically) meaningful than a reprimand months later. Employees also have the moral right to honesty from their supervisors. Employees also have the moral obligation to do their work in the best way they can. Some workers feel this obligation strongly and desire helpful feedback. These ethical considerations justify an employee who complains at a negative annual performance review, "If you didn't like what I was doing, why didn't you tell me at the time? Why did you smile at me when you were really angry with me? How can I trust you or anything you tell me if you don't level with me?" The underlying moral issues here are truth, deception, and lack of respect for the worker.

The attitude and performance of supervisors are another moral issue. A company expects its supervisors to take responsibility for the quality of production. They have two ethical responsibilities here. First, they must perform the supervision for which the company pays them. Second, supervisors must promote a climate in which employees value quality. Some supervisors may find it easier to hide at their desks than to be involved with continuous employee development; those who express indifference (or cowardice) are

guilty of moral failure as well as bottom-line failure. The company has the right to expect from its supervisory personnel the same good quality and productivity that it expects from production workers.

Customer satisfaction with quality ties in directly with the pride and involvement of the production worker. Peters and Austin (1985) begin their discussion of ownership by referring to a diagnostic process. The process measures customer satisfaction with goods or services as a way of providing information about quality to workers. Peters and Austin suggest promoting a rigorous and regular effort to contact customers, finding out to what extent the products or services were acceptable or unacceptable. The company then would post charts with these findings in work areas and encourage workers to revise the process and the product or service to better satisfy its customers. This process is analogous to Deming's statistical process control.

Because of rapid growth in the service and information sectors of the economy—sectors which do not always have "hard" products that can be checked or corrected for defects—customer satisfaction may become an increasingly important measure of quality and productivity. No matter how satisfaction is measured, customers morally deserve to receive the services or products for which they have contracted. The customer may be more interested in quality than in the supplier's productivity, although the customer may benefit economically from the supplier's improved productivity. The customer morally deserves a level of quality that the supplier specifies or implies.

The OD practitioner has a big job in providing ethics education and instilling an ethical consciousness in the workplace. For proper performance appraisals, for example, the training of supervisors and management development clearly should cover issues of honesty toward the worker, integrity on the part of the supervisor, and concern for the company's overall benefit. The OD practitioner involved with training, problem solving, or performance appraisal systems clearly has a part to play in developing that ethical sense within the organization's culture. To improve customer satisfaction, the ethical dimension can increase individual employee ownership over the work process. The issue of ownership stretches beyond, and may even precede, the cost-benefit concerns that may be of great interest to the company but of only marginal importance to the individual worker. "Doing it right the first time" becomes more than a matter of eliminating rework; it becomes a moral value to the worker. This is good for the company but can have even greater importance to the moral growth of the individual, with potential benefits to the community and future generations.

Conclusion

The role of ethicist is sometimes not a comfortable one to play, particularly for the internal consultant. Words such as "whistleblower" and "watchdog" are not inviting. Happily, prevention is usually more palatable than cure. The consultant can be a valuable partner with management, workers,

and customers in building an organizational culture that considers the ethical dimensions of quality and productivity issues as serious policy issues. This sensitivity may improve the products or services a company provides. Even if the bottom line does not show significant change, an ethical climate and ethical behavior are valuable per se. The organization development practitioner, with an overall view of the organization, may be in the best position to recommend and implement changes that are congruent with the values held by workers, management, and customers, as well as by society at large.

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Visioning the Future

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Organization development activities can help executives understand their role in continuous improvement of quality and productivity, which in turn will ensure the future competitiveness of their organization. This chapter, with its explanation and exercises, focuses on the consequences of traditional management versus new management and illustrates a way to transform traditional management practice into that needed for present and future survival and growth.

Why change?

In recent years, we've read much about industry in the United States losing its competitive edge in the worldwide marketplace. Foreign competition, with products of higher quality at competitive prices, is threatening U.S. industries on all sides. These industries can no longer maintain the myopic view that their competition is in the next county or state. With today's increased communication and transportation, competitors may appear from anywhere. The failure of management to recognize that competition is global and to plan accordingly is evident in overstaffing; wasted material, capital equipment, and facility space; high costs; low quality; and loss of market share.

To underscore the competitive problem facing U.S. industry, consider the U.S. trade balance for the past 12 years. According to the Commerce Department, the last year in which the United States had a positive trade balance was 1975. Since then, the trade balance has been growing progressively worse, with a negative balance of \$170 million for 1986. Figure 1 displays this imbalance of U.S. trade. In buying more products than it produces, the United States is participating in the massive exportation of jobs from this country to other nations.

Historical perspective

The Japanese were not always known for products of superior quality. During the 1930s and 1940s, Japanese goods were generally considered to be of poor quality. At the same time, Walter Shewhart of Bell Telephone Laboratories and other U.S. statisticians introduced the use of control charts in the United States to identify the variability of the work process. W. Edwards Deming and other statisticians pioneered new methods of statistical analysis that helped the United States produce large quantities of high-quality arms during World War II.

Figure 1—United States trade balance

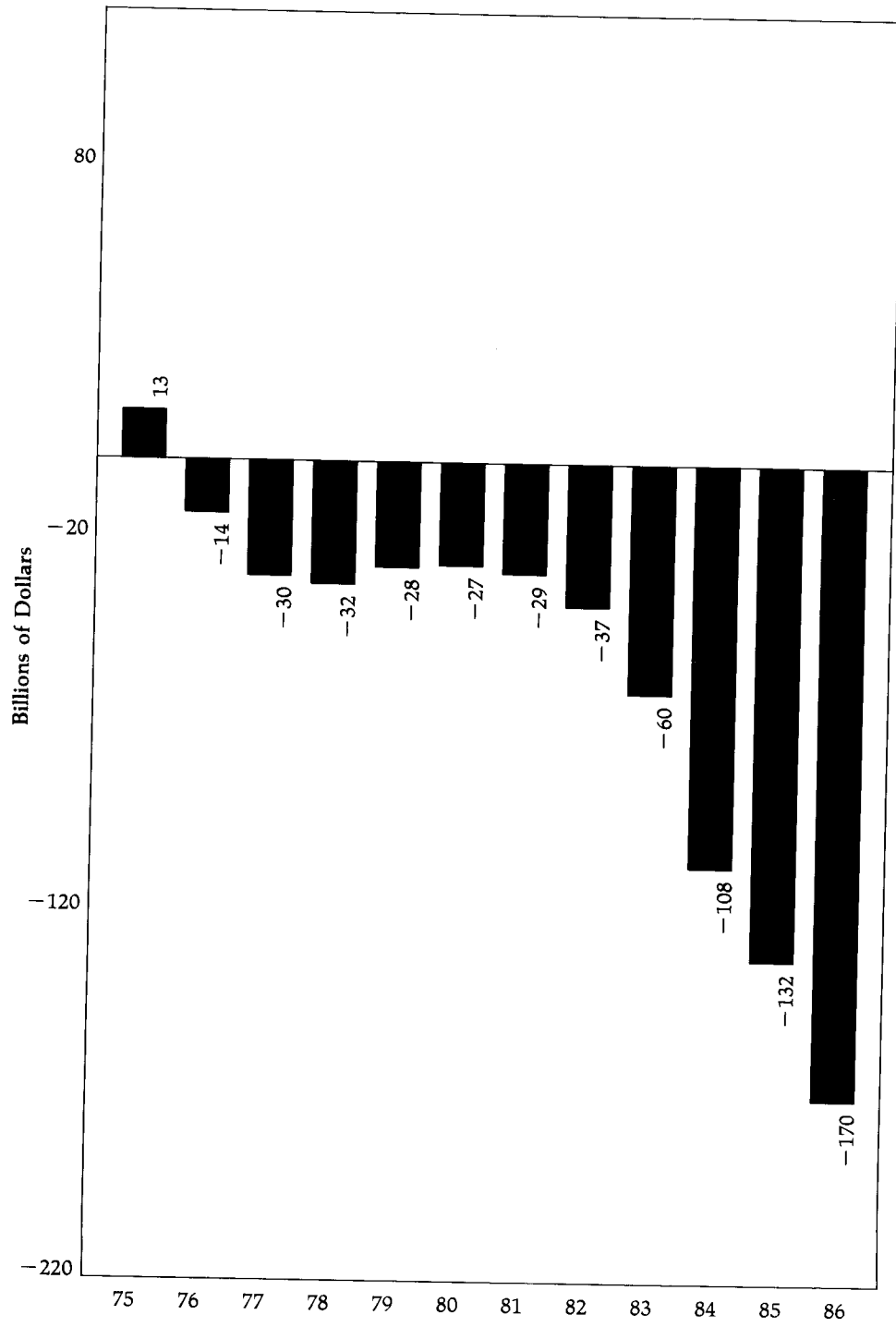
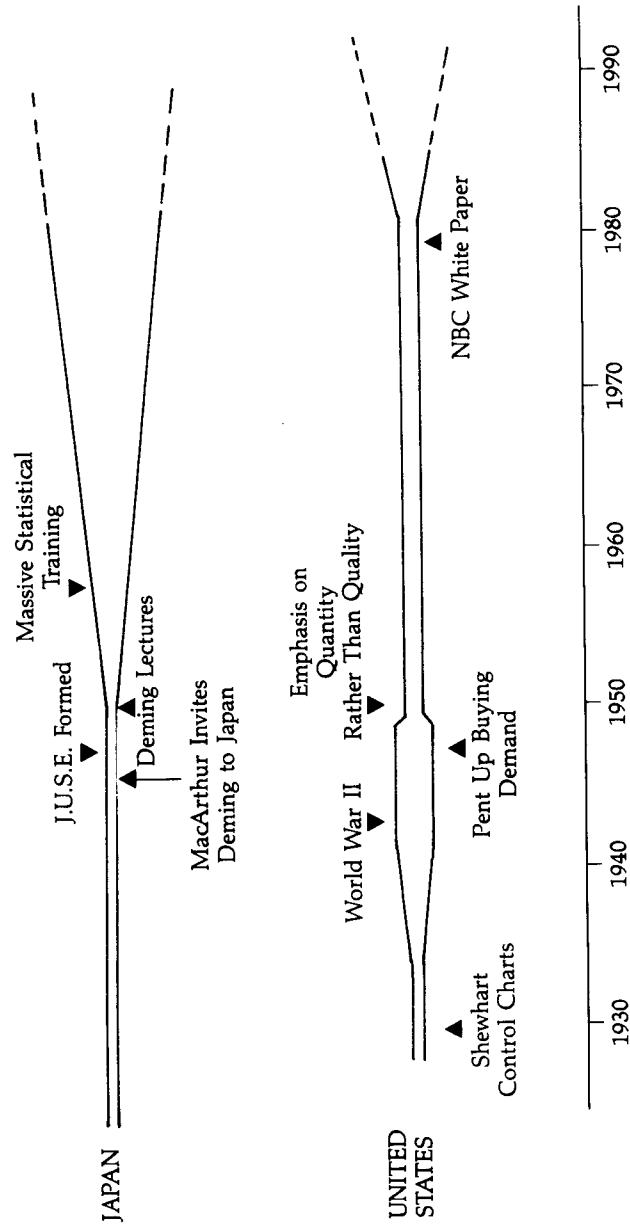


Figure 2 Quality Evolution



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These new methods, however, fell out of use as the United States entered the postwar era. With accumulated savings from high employment and high salaries and the recent experience of rationed or unavailable goods during the war, our nation went on an explosive spending spree when merchandise became available. North American industry had little competition after World War II because the war had badly damaged the production capabilities of other industrial countries. Meeting quantity demands on schedule took priority over any concern for quality.

The management philosophy of quantity over quality has continued from the post-World War II years to the present. U.S. consumers have reinforced this management philosophy by accepting defective products. Furthermore, industrial leaders have believed that increasing the reliability or quality of products automatically increases the cost of producing products. Hence, the quality of U.S. goods has typically remained low.

Japan, on the other hand, entered the post-World War II era with its economy and industry in ruins. With the encouragement of the Supreme Allied Command, the Japanese invited Deming to conduct seminars on quality improvement similar to those he conducted for U.S. industry during the war years. Throughout the 1950s, Deming and others taught the Japanese the tools and methods of decreasing dispersion in, and continuously improving, their work processes. During the seminars, the Japanese learned how to improve quality throughout the organization—in production, sales, engineering, distribution, and administration. The massive statistical training of management and workers resulted in increased quality. The rest is history.

In order to reverse the decline of the United States' competitive position, managers must learn new ways of managing the systems they supervise. In turn, as managers change, so must the entire work force and leaders in labor, education, and government. In other words, everyone from top management to hourly workers will have to commit themselves both to a philosophy that seeks to improve quality and productivity and to the training necessary to carry out that philosophy.

Exercise directions

Using the form in Figure 3, list changes that have occurred in your marketplace, industry, organization, competition, technology, etc., in the last five years.

Change to what?

This chapter presents a normative organization development approach by promoting a specific purpose and direction for change. Change is clearly needed in order for United States business to gain a competitive advantage in today's global economy. The management philosophy of W. Edwards Deming (1982, 1986) provides direction for this change.

Figure 3—Changes noticed in last five years

Country	
Industry	
Market	
Technology	
Competitors	
Customers	
Suppliers	
Company	
Department	
Job	

Deming's philosophy

The underlying foundation of Deming's philosophy is that quality and productivity improvement are everybody's job. Management and workers jointly share in this responsibility. From this premise, these responsibilities follow:

- Management must learn to analyze which parts of a problem are caused by the workers and which are caused by the system. According to Deming, in a typical process, workers cause only about 6 percent of the problems. Ninety-four percent of the time, management must step in and take corrective action to improve the process.
- Management must have the commitment and cooperation of the workers.
- Management and workers must speak a common language so that together they can identify and discuss the problems that prevent or limit quality and productivity. Statistics is a language that permits communication among the work process, the worker, and management.

Deming focuses on the improvement of product and service processes by reducing the uncertainty and variability in the design and production process. He supports continuous improvement of work processes, emphasizing the Shewhart cycle, which consists of the following steps: plan, do, check, and act. (Many people refer to this as the Deming cycle. However, Deming gives the credit to Shewhart.) It is a never-ending cycle of improvement that occurs

Figure 4 \bar{X} and R control charts

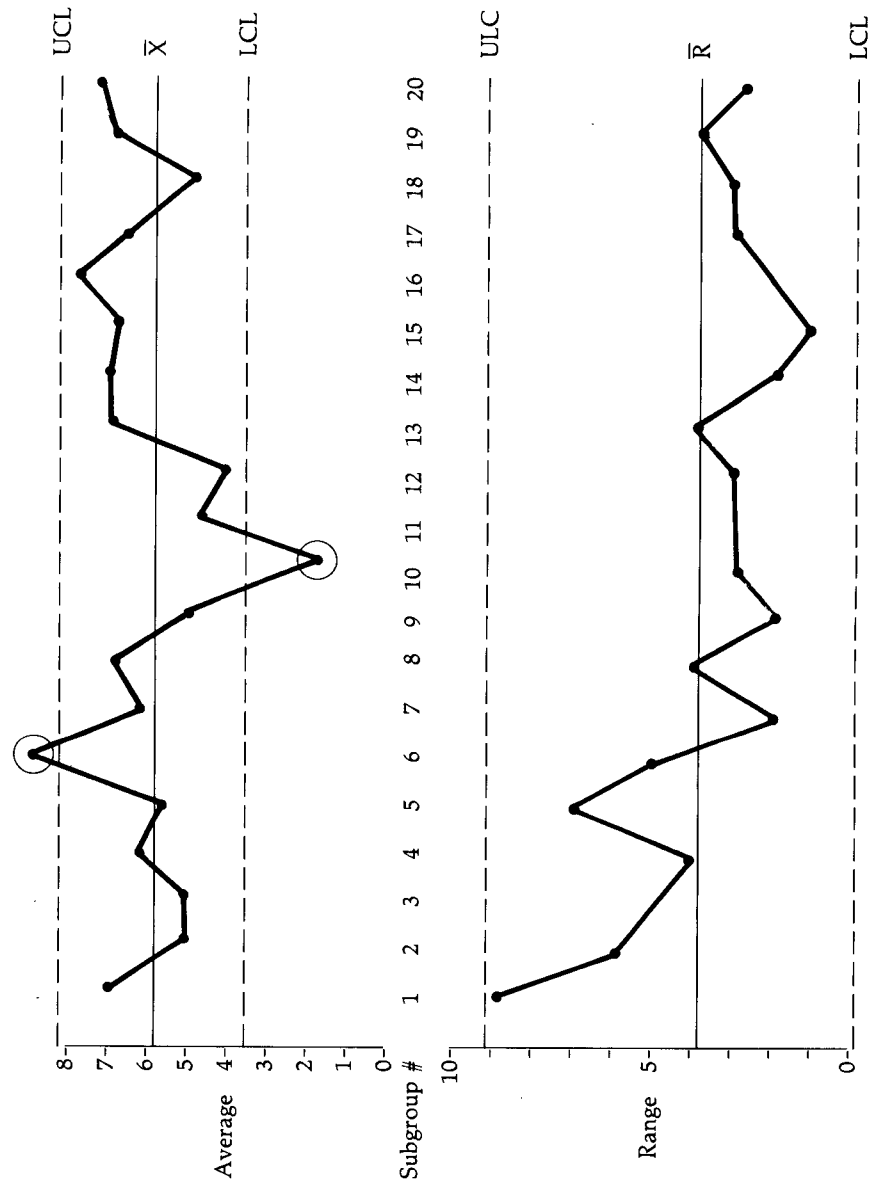
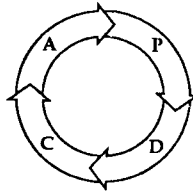


Figure 5—Cycles of transformation efforts

Though no hard and fast rules exist, there seems to be adequate testimony and experience to roughly describe the first “cycles of transformation” for a typical organization. We have chosen “cycles of transformation” as the descriptive phrase because transformation is an iterative process and the Shewhart cycle is an elegant model. Each iteration of the cycle includes:

ACT: Does the data confirm the “plan”? Are other “causes” operating? Are the “risks” of proceeding to further change necessary and worthwhile?

PLAN: What could be? What changes are needed? What obstacles need to be overcome? What are the most important results needed? etc. Are data available? What new information is needed?



CHECK: Measure and observe “effects” of change or test.

DO: Small scale implementation of change or test to provide data for answers.

The plan is then modified by conclusions/answers surfaced in the first cycle. This is then followed by continuous reiteration of all other steps, expanding knowledge and applying understanding, forever.

in all phases of a company, including product design, manufacturing, testing, sales, and customer service.

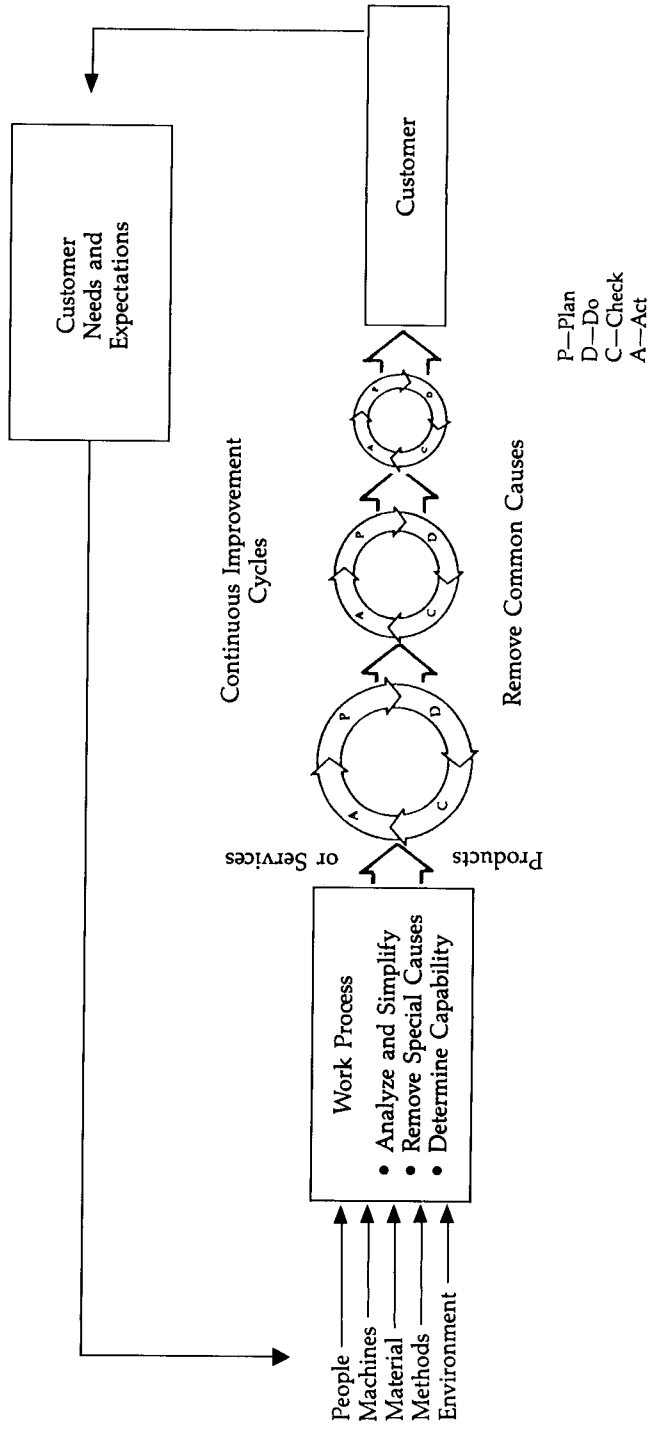
Deming claims that higher quality leads to higher productivity, which in turn leads to long-term competitive strength. He emphasizes the long-term success of the company, rather than short-term quarterly profit increases, and supports the idea that improving quality provides the best path for meeting these goals.

Deming identifies two sources of improvement of processes:

- eliminating “special” causes of quality problems: those associated with individuals or with a specific machine or batch of materials
- eliminating “common” causes of quality problems: those associated with the process itself, such as poor design, faulty or improper material, inadequate or inappropriate training programs, and poor working conditions

Special causes of variation become apparent on a control chart when a point falls outside calculated control limits or when patterns indicate that the variation is not part of the process’s normal variation. The elimination of a special cause, once detected, is often the responsibility of someone working directly with the operation. Through the application of statistical methods, the work process communicates to the operator that something has happened that is abnormal and needs investigation.

Figure 6 Process Improvement Path



Common causes—or problems with the overall system—are management’s responsibility to correct. Once it has removed special causes, management can begin to find ways to reduce normal variation or to shift the mean value in a desired direction. This effort to improve the system is an ongoing effort that management must carry out and communicate to the workers.

Deming emphasizes that the firm’s top management team has the overriding responsibility for improving quality. The distinction between the employees and the management staff is that the employees work in the system, while the management staff works on the system, helping to improve it and the product or service produced. Deming states that most quality problems are management-controlled rather than worker-controlled.

The “Cycles of Transformation Efforts” (Shewhart cycle) shown above describes the organization change process for quality improvement. Though no hard and fast rules exist, most organizations have a similar transformation process. This transformation toward quality is an iterative process, and comprises the following steps:

- Plan. Determine which changes are feasible and necessary. List the obstacles to overcome and decide what the more important results may be. Begin determining what new information is needed.
- Do. Begin with a small-scale implementation of the changes or a test to provide the data for further implementation.
- Check. Measure and observe the effects of the change or test.
- Act. Determine whether the data confirmed the actions set forth in the plan. Determine the risks of progressing with the plan on a larger scale.

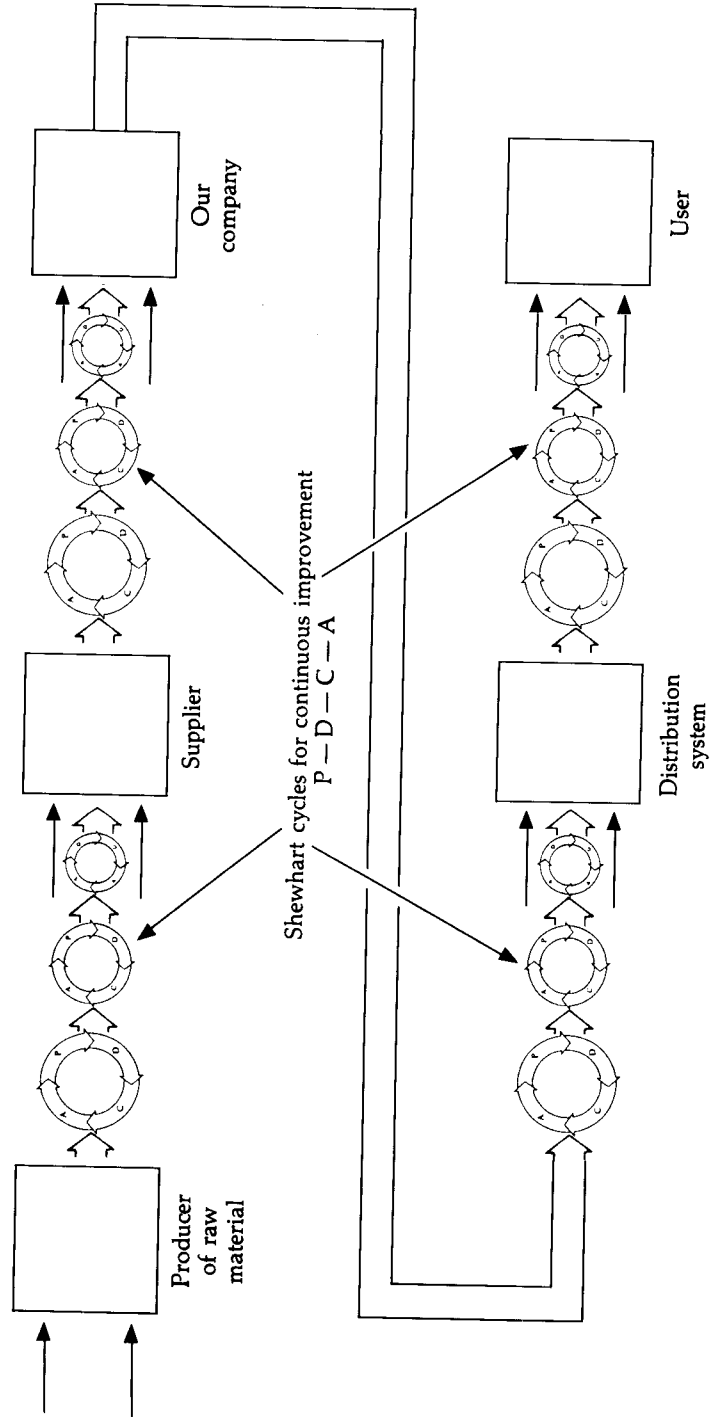
After completing these steps, modify the plan according to the results of the analysis. Repeat this process throughout the organization; expand knowledge and apply increased understanding with each cycle.

Deming provides a simple, effective method of looking at problems by distinguishing between special causes and common causes. By combining that method with the steps of the Shewhart cycle, creating a process-improvement path (Figure 6) for the total organization is possible. Using the inputs and transformations—as well as the continuous improvement cycles of plan, do, check, and act—the improvement plan considers customers’ needs in order to help produce a high-quality and marketable product.

Finally, this concept extends beyond the organization to include suppliers and distributors. Involving these people in the quality improvement effort is essential if quality is to become built-in and carried to the end-user as illustrated below in Figure 7.

Direct measures of quality are central to the selection of quality improvement projects. Such measures include physical, statistical, and other non-financial measures of product or process quality used to improve and manage quality. Material waste, defect rates, late deliveries, personnel turnover, and absenteeism are examples. Both workers and managers easily can quantify and understand such measures. They often provide immediate, useful information for quality improvement activities, because they draw attention to the actual process needing improvement rather than simply the magnitude of

Figure 7 The extended process



the quality problem. A company can use direct measures to develop a path for improvement. The measures cannot be combined for numerical analysis, which helps avoid the pitfall of using "cost of quality" calculations (accounting systems for categorizing, tracking, and collecting costs related to poor product and process quality).

For effective measurement, Deming recommends using statistical process control (SPC) techniques, which include control charts. Every employee in the company should be familiar with elementary SPC techniques, because they provide a common language for management and workers to use in working together. Deming developed a set of requirements for management to achieve quality and excellence. His 14 management actions to improve quality are as follows:

- Create constancy of purpose toward improvement of product and service, in order to become competitive, stay in business, and provide jobs.
- Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, learn their responsibilities, and take on leadership for change.
- Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.
- End the practice of awarding business on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for any one item, on a long-term relationship of loyalty and trust.
- Improve constantly and forever the system of production and service to improve quality and productivity and thus constantly decrease costs.
- Institute training on the job.
- Institute leadership. The aim of supervision should be to help people and machines do a better job. Supervision of management and of production workers is in need of overhaul.
- Drive out fear, so that everyone may work effectively for the company.
- Break down barriers between departments. People in research, design, sales, and production must work as a team to foresee problems of production and use.
- Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity.
- Eliminate work standards (quotas) on the factory floor; substitute leadership. Eliminate management by objectives, numbers, and numerical goals; substitute leadership.
- Remove barriers that rob hourly workers of their right to pride in their craft. Make supervisors responsible for quality, not just quantity. Remove barriers that rob people in management and in engineering of their right to pride in their craft. Abolish annual or merit ratings and management by objectives.
- Institute a vigorous program of education and self-improvement.
- Put everybody in the company to work at accomplishing the transformation. The transformation is everybody's job. (Deming 1986, 23–24)

Figure 8—Management styles

Old	New	Consequences 2-5 years from now
Dictate	Coach	OLD
		NEW
Judge	Lead	OLD
		NEW
Admonish	Assist	OLD
		NEW
Discipline	Counsel	OLD
		NEW
Compete	Collaborate	OLD
		NEW
Talk	Listen	OLD
		NEW
Quantity	Quality	OLD
		NEW
Fear	Trust	OLD
		NEW
Work for	Work with	OLD
		NEW
		OLD
		NEW
		OLD
		NEW
		OLD
		NEW
		OLD
		NEW

The discussion in this section shows that Deming's philosophy promotes a total system approach to change, a definition that Burke has given to organization development (1982). Deming's philosophy clearly describes the organization as a sociotechnical system (Trist 1960), emphasizing the need to address both the technical and social subsystems. Deming targets the organization's total culture, and not its individuals, for change. Research regarding organizational change confirms the validity of that target (Burke 1982).

Exercise directions

On the form in Figure 8, add more traditional management styles to the listings in the "old" column. In the "new" column, add more styles that would reflect Deming's principles. Then, describe what you perceive the consequences would be for both styles two to five years from now in your organization.

1992 vision

Many books discuss visioning the future. In their book *Inner Skiing*, Gallway and Kriege (1977) teach readers first to imagine themselves skiing gracefully down a slope like experienced skiers and then performing the skill very naturally. In the exercise that follows, the authors ask executives to close their eyes and imagine how their operation will function in five years if everything were utopian and they were able to make happen anything they wanted. The executives then list on the exercise form various operating methods, practices, and principles that came to mind when they were visioning perfection in the future.

One organization started this exercise by listing traditional financial goals they would like to see in five years. An individual in the group brought the others up short by interjecting, "Wait a minute. This isn't what it is all about. What we really want is our organization to be in a state of continuous improvement." The others readily agreed, and they erased their financial scorecards and started over. They envisioned that individual workers would be able to make decisions and solve problems. Supervisors then would become coaches of their employees, assisting them as required. Middle managers then would be free to improve the processes in which their workers were performing. Higher-level managers would look at the bigger picture and become system improvers, while executives could focus on the long-term and become strategic planners.

After documenting the vision of the ideal-functioning organization, the executives list all the obstacles they see in the way of making their ideal become real. These obstacles could include time, money, training, individual enlightenment, short-term thinking, schedule priorities, preventative maintenance, equipment, processes, facilities, and market.

The final column in this exercise requires participants to list the activities required to overcome the obstacles. When the objectives and obstacles are in

Figure 9—Visioning the ideal future

1992 vision	Obstacles	Action items

front of you, developing an action plan is surprisingly easy. Most executives are able to move easily from this list of activities into a functional roadmap to lead their organization to the idealized vision.

Exercise directions

Close your eyes and envision how you would like to see your organization functioning five years from now. In the first column of the form in Figure 9, describe what you saw in this vision. Next, list the obstacles preventing you from reaching this vision. Finally, in the last column, detail the action items necessary for overcoming the obstacles.

How to make it happen

Most organization development professionals find it difficult to conceive of a model that would help all organizations become more competitive in a global marketplace. A statistical consultant once said, "Any two things not the same are different." He was referring to the fact that variation is always with us, and differences occur in items, processes, and organizations. No two things are ever exactly the same, and each organization must be treated uniquely. Many similarities do exist, however, and a basic but flexible model is a helpful starting point.

Organization change process model

Process Management Institute, Inc. (PMI) has developed a generic model of an initial change implementation process. Entitled "Quality Transformation Process" (see Figure 10 below), it can be tailored for each specific organization. The generic model is shown in the form of an integrated flow chart by which executives can initiate thinking for their own organization roadmap.

The names of individuals or groups involved appear at the top of the chart. With this chart, groups and individuals can detail their part in the pro-

cess, thus indicating where omissions or overlapping takes place. Organization development professionals perform management development consulting; graduate-degreed statisticians conduct statistical consulting; and management professionals provide account management functions.

The Quality Transformation Process illustrates a corporate division taking the lead and initiating its own management and process improvement transformation. As with any organization change effort, it must have the unit's top management commitment and involvement to be successful. A unit can be a location, plant, division, group, or an entire company. Obviously, if the top corporate executives are committed and involved, everything works more quickly and smoothly. The model, however, can work effectively within a unit.

Typically, the first step does not occur with the consultant contacting the organization, as depicted in the model. Usually an organization's external customer takes the initial step by contacting the organization for a quality audit or requests for statistical evidence of quality. The organization then contacts consultants for assistance.

The consultant conducts an initial data collection process to discover the organization's present quality level, the workers' knowledge and their attitudes toward quality, and the organization's priorities and chances for improvement success. To gather the knowledge needed to tailor the Quality Transformation Process for this organization, the consultant interviews groups of people at all levels. As Deming states, it is important to know what questions to ask.

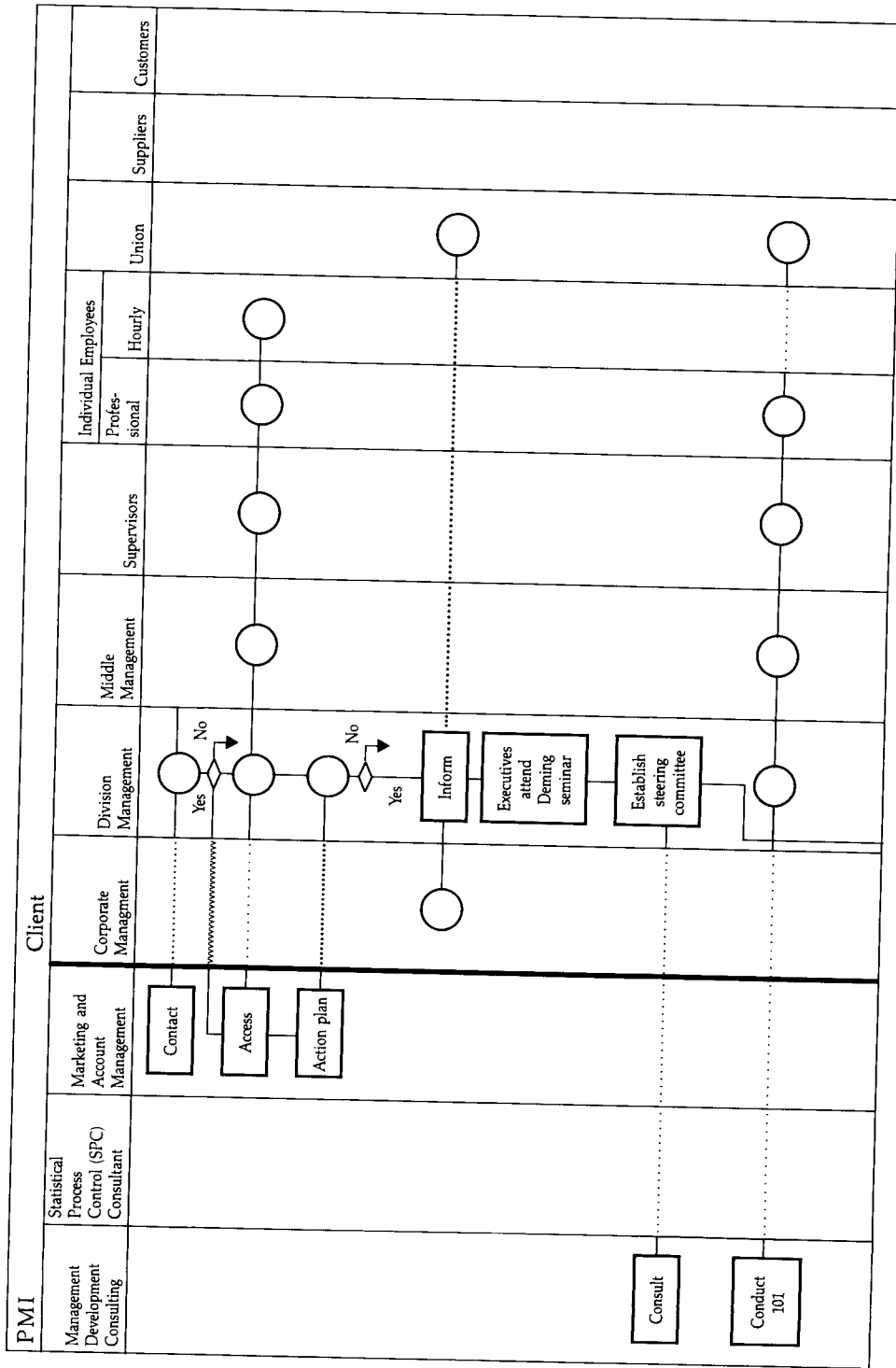
Combining the data with knowledge and experience, the consultant develops action steps in the form of an initial transformation model. A subsequent meeting with the unit's top management involves feedback concerning the data and discussion and modification of the intervention model. Following this, the consultant seeks management's commitment to implement the model. If management decides to proceed with the change plan, they then inform corporate-level managers and, if applicable, the union. Typically, division management has enough latitude and money to begin a process like this on its own, keeping senior corporate management apprised. By the time discretionary funds run low, progress is apparent and management will authorize and fund the total effort.

The Quality Transformation Process closely connects the technical and social change efforts. The remainder of this chapter will describe a process within the model for implementing Deming's 14 principles.

Improving the quality management process

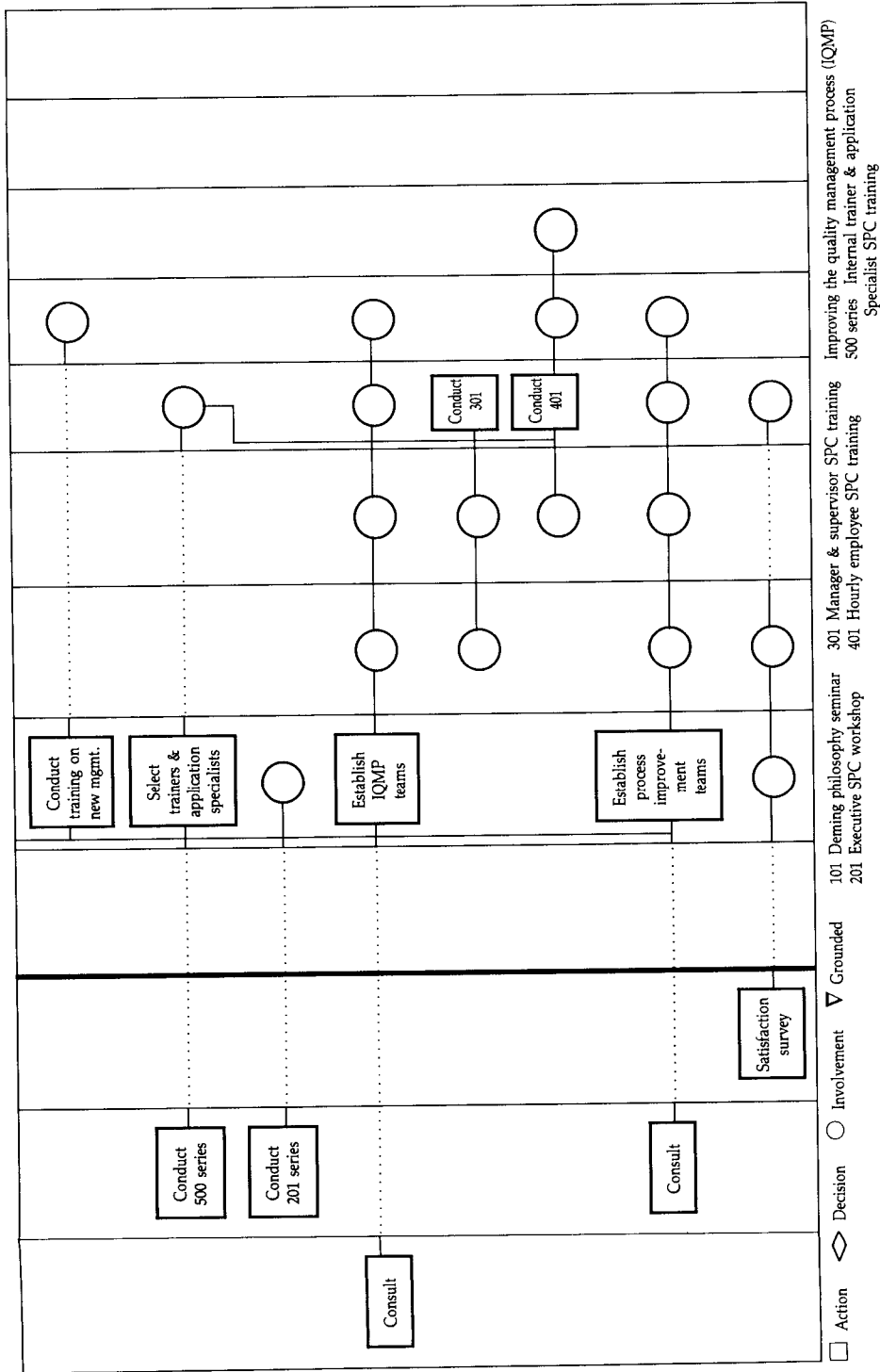
IQMP is a process for change that management owns and implements with continuing help from the external consultant (McLean & Pakenham-Walsh 1987). By virtue of the process's design, individual top managers become internal change agents who act as "guardians, or facilitators, of the new culture" (Burke 1982) by becoming champions of Deming's 14 principles.

Figure 10—Quality Transformation Process



Revised 7-21-87

Quality Transformation Process (continued)



IQMP has three stages: education, implementation, and continuous improvement. In the education stage, top executives attend a four-day seminar on the Deming principles. Upon the executives' return, they form a steering committee, normally made up of the division manager and direct staff, plus a "Deming coordinator." The latter is responsible for coordinating administrative details, but the division manager must lead the effort.

The steering committee has many functions; the first is to plan the implementation stage which includes how to carry the message of Deming's philosophy to all employees and how to obtain on-going feedback from throughout the organization. The external consultant delivers to all salaried personnel a two-day awareness seminar on the 14 principles. Hourly workers learn about the principles through a one-half day session, which division management conducts. The session allows two hours for describing the new philosophy and two hours for open discussion. The timing of the hourly workers' session is critical. Experience shows that these employees readily accept Deming's philosophy, but then expect immediate signs of change. Management must be aware of the need to support their words with action and to instill trust and respect between themselves and the workers.

The division steering committee (DSC) initiates the IQMP by its direct involvement. Each member of the DSC becomes division "champion" for one or two of the 14 points. The champion has primary responsibility for helping the division accept and integrate the particular point(s) into the operation. This is so great a task that it requires a team effort to identify any obstacles to implementation and their solutions.

The 14 points are inseparable. One cannot select some of the points and omit the others. They address both the technical and social subsystems of the organization and are thus interdependent. It is possible, however, to classify the 14 points by the type of action required to implement them. Some of the points, such as improving leadership, allow for immediate action. Others, such as improved training, may require changes in division procedure. A third group, which includes improving education or moving toward single suppliers, may require corporate policy changes.

Typically, the DSC will classify the 14 points according to the three types of implementation action required. The implementation stage begins with the DSC gathering data about quality throughout the organization, specifically regarding the 14 principles. In addition, the committee plans its process for continuous improvement. It establishes three "IQMP teams," with members representing many functions and levels within the operation. The DSC selects one half of the members, who in turn select the other half. Each of the teams becomes responsible for one of the three groups of principles. Their charge is to identify obstacles that prevent the division from living out that group of principles and to make recommendations to the DSC for the removal of these obstacles. Because each of the principles they are working on has a champion on the DSC, the teams have a resource high in the organization to help them with their work.

The IQMP teams operate continually. While they never attain perfect

implementation of the 14 points, they seek continuous improvement. Membership on the IQMP team rotates with one- to two-year terms, but the implementation efforts carry on forever.

The work of one IQMP team involved the entire corporation. Breaking down barriers between departments was one of the team's assignments, and its discussion identified eight major categories of barriers. On butcher paper, the team created huge Ishikawa (cause-and-effect) diagrams with the eight categories and placed copies of them at locations throughout the corporation. All workers could suggest the specific barriers they perceived existing between departments. Hundreds of barriers were thus identified, and the IQMP team was on its way to eliminating them one by one.

The organization development consultant who assists the steering team also helps the IQMP teams organize into a cohesive, collaborative team and follow the change process through to its results.

The continuous improvement stage begins with the DSC members becoming ex officio members of IQMP teams. Each team studies the principle that the DSC member is "championing." This DSC member supports the IQMP team and receives input from it regarding the status of the principle but does not make decisions for the team. As McLean and Pakenham-Walsh (1987, 165) state, "For some, this may be a first experience acting as resources for other people, offering advice, using power to help the groups achieve their objectives, and providing information—but *not* making decisions for them."

During this stage, the IQMP teams from specific project teams (SPTs) whose purpose is to apply the Shewhart cycle (Figure 5) in order to remove identified barriers to implementing a principle. SPTs are ad hoc groups with a voluntary membership comprising workers from the rest of the organization. Senior management personally interacts with the IQMP teams and SPTs, approving IQMP recommendations or giving data-based reasons for withholding approval.

The organization of workers in teams sets into motion a cycle of continuous improvement for the entire organization, as new individuals will continue to be educated and become involved. The DSC continues to hold meetings with the IQMP teams. Eventually, the previous organizational culture gives way to a continually improving culture based on Deming's 14 principles.

In addition to the cultural change process, the DSC has a responsibility to create a system within the division to improve continuously and relentlessly the processes in every department. Also, all employees must learn statistical methods so they can use them on their own work processes in real time.

The external consulting firm performs regular client satisfaction audits at all levels of the organization. This information also guides the emphasis of efforts for the following year.

Exercise directions

On the blank integrated process flow chart, plan a process for your organization to improve quality and productivity.

Figure 11 Quality transformation process

Consultants/resources			Our organization								
Management development consulting	Statistical process control (SPC) consulting	Marketing and account management	Corporate senior management	Division management	Middle management	Supervisors	Individual employees Professional Hourly		Union	Suppliers	Customers

- Action
- Decision
- Involvement
- Grounded

Conclusion

The process described here for implementing Deming's 14 management principles exemplifies a long-term organization development intervention for large system change. It involves common organization development procedures and strategies such as survey feedback and participative management. Interventions involve training, team building, and intergroup interventions. It is a highly normative approach: Deming's 14 principles are interdependent, and thus an organization must implement all 14. A partial application will not work.

This roadmap to continued improvement, which involves all the people in continuously improving the quality of work processes, will result in higher-quality products and services, lower costs, better schedule adherence, and finally the corporation's long-term success.

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An Organization Development Consultant Job Description for Implementing an “Improving the Quality Management Process”

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In the previous chapter, Schultz and Parker describe a change process for implementing Deming's 14 principles. They label this process as IQMP—Improving the Quality Management Process. This process, with the results obtained in one client organization, is described in further detail in McLean and Pakenham-Walsh (1987).

In order to implement this “in-process model” on a broad scale within its consulting practice and to respond to the rapidly developing demand for its application within client organizations, Process Management Institute (PMI) needed to expand its in-house consultant base. While PMI was confident about the requirements for its statistical consultants, it was less clear about what it should look for in hiring organization development consultants who would be comfortable with, and competent in implementing, the IQMP model.

Because of this need, I was asked to develop a job description for an IQMP/OD consultant. That document follows in its third revision, having been reviewed by the OD staff of PMI and by two OD colleagues—Erin Threlkheld and Roland Sullivan, of Roland Sullivan & Associates, to whom I am indebted for their fine suggestions for improvement. Given that the description is an implementation of Deming's principles, I hope that it will remain open for “continuous improvement.”

Process Management Institute, Inc. Organization Development Consultant Job Description

Accountability

Responsible to PMI's steering committee and to the team of organization development consultants within PMI.

Job Summary

This position has two dimensions: to facilitate the implementation of the IQMP model with clients and to develop actively PMI's IQMP capabilities, in both cases to improve quality and productivity.

Job Duties

Dimension 1: Facilitate the implementation of the IQMP model with clients.

- Present the IQMP model to clients and potential clients.
- Contract with top management; continue building top management commitment and support. (This step will recycle throughout client contact.)
- Conduct organizational diagnoses to determine current quality and productivity performance, organizational climate, existing level of management skills, and current training endeavors.
- Feedback both orally and in writing results of organizational diagnoses to client, PMI Steering Committee, and internal organization development consultants (PMI OD team); facilitate discussion of feedback and formulation of appropriate interventions.
- As needed, conduct team-building activities with steering committee, initially, and with IQMP and implementation groups within the client organization as these develop.
- Provide process consultation to steering committee, IQMP groups, and implementation groups within the client organization.
- Conduct training needs assessment as related to the IQMP.
- Provide training as identified from the needs assessment to client organizations, with special attention to group process, problem solving, conflict management, and team building; or identify appropriate resources (materials/personnel) to conduct such training.
- Design and develop evaluation of training provided using four levels (reaction, learning, behavior, and results), with an emphasis on the results whenever possible.
- Coach individuals as necessary and as requested to improve organizational results through improved group facilitation and management skills.
- Model statistical process control (SPC) applications when possible and helpful during facilitation of groups that are attempting to interpret Deming's principles for their organization.
- Develop, with the client, evaluation criteria for the IQMP efforts within the client organization. Gather pre-intervention data on the criteria, as well as formative and summative data.

Dimension 2: Develop PMI's IQMP capabilities.

- Develop customized tools to use in organizational diagnoses.
- Using OD theory and the experiences of clients and other OD consultants from within PMI, systematically develop and assist in developing other models, tools, and instruments to use in implementing the IQMP model.
- Provide input into the design or selection of a computerized system for conducting and analyzing customized organizational diagnoses.
- Using client information, provide input into the design and development of a videotape summarizing the IQMP process to be used for educational and marketing purposes.

- Participate in PMI OD team meetings to clarify, revise, and continuously improve the IQMP model.
- Design and develop training packages in the areas of group process, problem solving, conflict management, team building, and other appropriate areas as needs are identified in the field.
- Add resource information to the "Training Resource Notebook" maintained within PMI as such resources are identified.
- Add examples of evaluation plans and forms used to the "Training Evaluation Notebook" maintained within PMI as such resources are developed and used with clients.
- Maintain account records and notebook for each client.
- Review status of each client—own and others—(via records and notebook) at the PMI OD team meetings.
- Participate in project teams to implement IQMP in PMI and to improve PMI's processes on a continuous basis.
- Publish articles and make presentations at professional meetings to further generally the quality efforts of industry, and to advance specifically the reputation and knowledge base of PMI.
- Market PMI through account expansion and management, including participation in the development of PMI's marketing plan.

Desired qualifications

- a master's degree emphasizing organization development
- at least five years' experience doing organization development, preferably in a for-profit environment
- experience in line management a definite asset
- a record of previous publications and presentations to professional organizations

Desired skills

- excellent oral presentation skills
- excellent writing skills and experience in writing proposals, reports, and articles
- competent in
 - training needs assessment
 - organizational diagnosis
 - construction of measurement instruments
 - data analysis
 - training design and development
 - presentation of training
 - evaluation of training and OD
 - action research
 - OD interventions, such as coaching, process consultation, conflict management, small-group processes, inter-group collaboration, team building, and problem solving

- strategic planning
- use of AV equipment
- interviewing
- performance appraisal/reward systems
- thoroughly knowledgeable about Deming's philosophy of quality and productivity; some knowledge about other related philosophies
- knowledgeable about management and general business practices, trends, and literature
- solidly grounded in statistical process control (SPC)
- solid understanding of the basic theories underpinning OD
- excellent marketing skills
- conceptualizing, especially in model development
- appropriate use of confrontation when necessary
- highly developed observational skills with minimum of bias
- sensitive to impact of subsystems within an organization, especially related to minorities and women
- computer applications—word processing, data bases, spreadsheets, statistical analyses, and graphics—with an assumption of keyboarding skills
- ability to work with a variety of personalities and types of workers, including levels of management and administrative and production workers
- high level of personal and organizational integrity
- ability to establish trust and create credibility quickly
- excellent listener
- knows self well, including strengths, weaknesses, limitations, feelings, style, reactions to stress, self-care, etc.
- appropriate use of humor
- endless patience and optimism
- committed to personal value of life-long learning
- high energy and physical stamina
- ability to use positively stress situations
- ability to empower all stakeholders
- ability and willingness to solicit feedback about own performance and provide such feedback to colleagues

Compensation

Beginning salary will be based on the number of desired skills a person has at the time of hiring. This will be increased as employee acquires additional skills. Accomplishments beyond those desired (e.g., a Ph.D. rather than an M.A.; 15 years' experience rather than five; extensive line management experience) will add to the individual's salary base.

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Gainsharing: One OD Approach to Quality and Productivity Improvement

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One Sunday evening between TV shows, I rushed out to my local convenience store for a frozen pizza. In line in front of me was an elderly lady who was quite careful in checking every item's price and ensuring that the young man at the cash register was being perfectly accurate. It was several minutes before she was satisfied. Just then the cash register ran out of paper, and I waited for the operator to change the roll. I was angry, impatient, and anxious to get home, but was completely shocked by the attendant's pleasant voice as he handed me my change and very apologetically said, "Sorry for the wait. I hope you will overlook the inconvenience this time and come back to our store. . . and by the way. . . here, have a chocolate mint on us for your trouble and inconvenience."

For a five-cent chocolate mint and some concern for my feelings, that employee bought my loyalty for a long, long time to come.

Are your employees concerned for your customers' feelings? Are they helpful and sympathetic to your customers' needs? Do your employees demonstrate a commitment to their work, to the company, and to employment security? Do your employees eagerly work to improve your customer base? And, is their heart really in their job?

How do you get employees to treat customers and other employees as the young man at the convenience store?

Some you hire may be naturally inclined to care for people—the customer, other employees, etc. And, if your employment and selection practices are near perfect, a large number of employees will have those qualities. But what about the group that can quickly undo what the positive employees have created?

Organization development theory says that we must now treat and motivate employees differently than in the past to gain that kind of commitment. Accordingly, future and modern business practices will include:

- greater incentives and much stronger pay-for-performance compensation
- more involvement and participative work practices
- more sharing of business information—making employees "business partners"
- rewarding people with job security and time off

Translated, all of this points to the leadership practices, employee involve-

ment approaches, and shared rewards (incentives) promoted through an organization development intervention: gainsharing.

A study by the American Productivity Center (O'Dell 1987, 9) showed a 168 percent increase in the use of gainsharing within service organizations, while the already popular program within manufacturing environments grew 76 percent. Of the nine nontraditional reward systems that the survey considered, gainsharing, pay for knowledge and small-group incentives showed by far the greatest projected growth increase.

Traditional reward systems are not working:

- The majority of employees do not find their job or their "reward systems" rewarding.
- Most employees see little relationship between pay and performance.
- Most employees believe they will not benefit from the productivity (quality, service, and production improvements) of their organization.
- Increases in salaries and wages have exceeded productivity and hurt competitiveness.
- Involvement—one component of a rewarding job—is underutilized (O'Dell 1987, 5).

Employees in the United States see no relationship between effort, performance, productivity, and their pay. In fact, only 13 percent of Americans believe improved productivity will have a positive impact on their pay. In Japan, 96 percent of the workforce believes that employers will reward efforts to improve performance and increase productivity.

Early experience with gainsharing

Gainsharing typically evokes association with the classical programs: Scanlon plan, Rucker plan, and Improshare plan. And to the extent that companies are willing to share profits rather than productivity gains, profit sharing has been considered gainsharing. Anyone choosing or designing the proper gainsharing plan for a company must consider the following:

- existing employee attitudes
- internal environment and culture
- external environment and competition
- management philosophy
- goals of the organization
- goals of the gainsharing plan

Before exploring these in more detail, we will briefly review the traditional gainsharing plans. This review will provide a backdrop to viewing gainsharing as an organization development intervention.

Scanlon plan

Detail on the Scanlon plan is found in Lesieur (1958). The plan or formula chosen for the Scanlon plan should include only variables that employees can affect. Success requires employee involvement and a congruent set of man-

agement practices. Further, all employees must understand the plan design and formula if they are to help make the plan successful.

Creation of the Scanlon single-ratio formula begins after an investigation of the relationship between sales dollars and labor dollars over an extended period of time, usually two to five years. A relationship or ratio is then agreed upon and used during the plan year to determine if the organization has achieved a gain. The single-ratio formula is susceptible to instability due to inflation or other significant pricing changes. Another problem is that this ratio affects labor, but does not strongly encourage employees to affect other inputs such as capital, energy, raw materials savings, safety, etc. This contributes to the formula's shortcoming.

Another formula, the split-ratio (or allowed labor cost) formula, is based on a computation of multiple departments versus products or product lines. This approach is used less frequently but is appropriate for some organizations. The obvious complexity creates some concerns. The split-ratio formula is similar to the single-ratio formula except that the output of two product lines within the same organization is considered separately within the computation of a bonus.

Scanlon was a strong advocate of involving employees in problem solving. Two forms of employee involvement are promoted: involvement teams or committees consistent with the organization structure and formalized suggestion systems.

Rucker (value-added) formula

The Rucker formula determines what percent of value added during production is the result of labor costs and is more stable than the Scanlon formula during periods of high inflation or price fluctuation. The Rucker formula is based on actual accounting data from at least three years of history. The difference between the selling price of products and raw materials and services is "value added." In a value-added formula, any savings (labor, materials, supplies, energy, etc.) helps the company. Employees receive a bonus on the portion that is the difference between actual labor costs and the Rucker standard.

The early Rucker plans did not stress employee involvement. Time and experience have brought about an increase in Rucker plan employee involvement through the following:

- suggestion boxes
- cost-saving "campaigns"
- plant-level committees (Rucker Committee)
- multilevel committees

The latter two were created to encourage employees to search out cost savings that would generate a greater bonus pool.

Improshare

"Improshare" came from the first letters of the words "Improved Produc-

tivity Sharing." The Improshare plan is significantly different from the Scanlon and Rucker plans. Improshare measures reduction in hours required to produce a unit of product or measures how many hours were required to produce "x" products compared to the goal or base period. The plan also differs because its bonuses can be paid weekly; other gainsharing plans are virtually locked into monthly or quarterly payouts.

The stability of Improshare is excellent since, with the exception of wage rates, inflation does not affect the formula. Similarly, the formula does not include selling price and the cost of materials, supplies, energy and services, so unusual savings in price or cost, or seasonal peaks and valleys, do not exist as they may in other plans. However, in some industries these variables become important productivity measures.

The Improshare formula has a narrow range of influence when it comes to encouraging employees to work smarter and reduce waste or other costs not in the formula. There is little, if any, incentive to reduce nonlabor costs.

Ease of administration, simplicity in the eyes of production employees, ability to utilize existing work measures or standards, and the speed with which an organization may implement the plan all are its strengths. Because of the plan's reinforcing value due to short-term payouts, employees favorably view the plan.

Neither an employee involvement thrust nor provisions for handling suggestions are part of the Improshare plan philosophy.

Implementing a gainsharing plan

This section presents a 10-step design process, as well as some methods for determining the congruence or incongruence of the variables within the environment and organization.

1. *Select a consultant/facilitator.* Few people today have first-hand experience at gainsharing plan design. Much trial and error and certainly many mistakes can be avoided. Someone from the "school of hard knocks" can avoid many mistakes." More importantly, all employees in the organization must perceive and believe that an objective and experienced third party is handling the consideration and implementation of a plan. A third party can say things to both management and labor that the other couldn't say—and get away with saying it. The most controversial discussions frequently involve evaluating baseline data and establishing a formula. Management personnel, usually the controller, will be viewed as far too conservative, while other employees, usually union members, are pegged as being too liberal and too anxious to establish an easily attained target. The third-party consultant is a "friend of the plan," thus wanting everyone to be successful.
2. *Assess the needs of the organization.* Gainsharing is an organization development intervention that should be prescribed after diagnosis. If existing levels of productivity and/or employee involvement are not organization concerns, then gainsharing probably isn't a need.

3. *Assess the readiness of the organization.* If there is need, is the organization ready for gainsharing? View readiness from the perspectives of environmental, organizational, and change congruence. As discussed previously, there are key variables that load a potential gainsharing plan for success or for failure. Assessing readiness can take a variety of forms. First, the consultant must understand the organization and how it fits in the competitive marketplace. What are the goals and mission and how are they planned for and achieved? Is there a fit between the company's approaches and those of gainsharing? And, what are the programs and processes already under way in the company? The consultant gains this information through sensing activities and survey techniques. The present climate and the attitudes of employees also are important readiness factors. And so is management's initial and likely continued support.

Environmental congruence occurs when certain internal and external key variables affecting the organization are compatible with the proposed gainsharing implementation.

Several organization congruence variables can influence the predictable success or failure of a proposed gainsharing plan implementation. Those variables may include the following:

- management's risk-taking tendencies
- management's tendency to support the long-term execution of programs
- management's "style" or approach to leading and guiding employees
- management/employee/union relations
- strategic fit
- organization size

Change congruence determines if a major change within the organization will be supported by other variables and events happening concurrently.

An initial sensing by the trained observer may suggest, "We're ready to begin designing a program." Yet some feedback about poor communications and trust levels may lead to interviews, which may lead to a survey, which may lead to follow-up discussions, which all might point to strong mistrust between management and employees and a culture that "begins new projects every month and seldom finishes any." Assessment is a series of paths that ultimately lead to opportunities or roadblocks. Knowing when to put up roadblocks and when to charge ahead will mean the difference between the plan's success and failure. This knowledge and experience should reside with the consultant.

4. *Determine mission, goals and objectives.* An organization that does not have good planning processes is unlikely to see the value of preparing thoroughly for gainsharing. Gainsharing should support and help achieve the organization's goals. Traditionally, gainsharing held narrowly formed goals to provide incentives for employees to improve primary productivity ratios. Today, more creatively designed plans also are encouraging a variety of other improvements: attendance, safety, health-care costs, workers'

compensation expenses, etc. The gainsharing design must become both compatible with and supportive of the company's mission and goals. There must be congruence.

5. *Determine whether gainsharing should be a strategy.* There are situations in which gainsharing will be an improper strategy for helping to reduce cost or improve quality, productivity, and service:
 - Where existing productivity standards are far too low. Initiating a gainsharing plan would pay for productivity improvements that are better achieved through good management practices. Companies should not pay for sloppy methods and practices that they should clean up before initiating a gainsharing plan.
 - When upcoming market dynamics are likely to be extreme and the only good productivity gainsharing measure is sales dollars.
 - When substantial layoffs are planned; the success of gainsharing should not be directly identified with people reductions.
 - When a change in management personnel is forthcoming and the philosophies of gainsharing and the new executive conflict.

These examples may suggest other strategic mismatches that can hinder—or even ruin—an otherwise good program.

6. *Appoint representatives to study/design team.* When one company president heard the recommendation to choose an 8- to 10-person gainsharing design team representing a cross-section of the entire company, he had two reactions: "First, we're paying a consultant to design a plan; and second, most of our employees don't understand our business and certainly don't understand gainsharing programs." He was basically correct on both counts. But to get a smoothly operating plan from day one, employees have to believe that the plan is fair, understand more about the "business," and believe that management will in fact practice the principles inherent in a good gainsharing design: improved management practices, employee involvement, and sharing improvements from gains.

The best way to ensure that management will change and that employees will learn is to get them started immediately practicing and developing the desired behaviors. A favored design team composition would include:

- location general manager
 - controller
 - human resource manager
 - first-line supervisor
 - five to seven others representing manufacturing, engineering, and purchasing/materials management
 - customer/quality assurance
 - other per organization structure
 - union representation, where appropriate
7. *Educate design team.* Equipping the design team with knowledge of gainsharing and of how the business operates, its competition, markets, and

where it must spend its money will prepare the team to begin making decisions and solving problems.

8. *Design and model plan.* Two components of the design process are important and, if not completed thoroughly, will lead to many regrets after a few weeks of plan operation. First is a plan document, and second is computer modeling of formula design alternatives.

Prepare a plan document ("summary plan description") to ensure that detailed interpretation is always possible. Never rely on your memory or the memory of others on the design team. The most distressing memories of a plan will be the arguments over unrecorded plan variables.

Similarly, don't rely on logic or mental mathematics to guarantee that the gainsharing plan design will deliver exactly the expected payout results under given conditions. Every custom formula I've seen computer modeled has generated surprises.

Historical modeling should review three to five years of the following kinds of data:

- What would have happened if the plan had been in place?
- How would the plan have paid bonuses if we had only achieved our business plan?
- By how far have we missed our business plan projections each year?
- What are the monthly, seasonal, or yearly business cycles that would have affected the plan?
- Have capital expenditures, e.g., new equipment, affected productivity and how quickly after installation?

Forward modeling should consider similar conditions:

- What are the upcoming market trends, or new entrées into the market that may affect demand, pricing, or productivity?
- Are there planned technology changes?
- What does the formula pay if productivity increases 1–15 percent?
- Are there conditions where the formula will pay for gains while the company is experiencing severe profit losses?
- Is one input or output measure overly influencing the formula?

These are only types of many questions and "what-if" modeling that are necessary.

Even the very best formula design will generate results that do not always motivate or reward goal performance. However, eliminating most of the surprises today will save headaches tomorrow. The front-end planning, design, computer analysis, and training will not be wasted time.

9. *Design training and involvement system.* Asking employees to improve productivity and make the gainsharing plan successful without providing training is like throwing darts at a bulls-eye when you're blindfolded. Employees must understand the plan and see the target. Initial training thus would include information on the company, its competition, markets, goals, and strategies. To have departments and individuals work toward achieving goals, they must understand the goals and perceive how their effort can affect success. Employees may need help determining techniques or methods of measuring performance.

If employees have been discouraged in the past from communicating and achieving results in a team environment, other training may be necessary. Such training might cover:

- listening
- communicating
- presenting materials in group sessions
- keeping records
- resolving conflict
- making decisions

These training needs will vary in intensity but will exist. The training should be custom-designed in each situation after analysis and diagnosis.

Certainly, training must ensure that each employee understands the gainsharing plan and how the formula is computed. The intent is not to make every employee capable of computing the formula each month; rather, each employee must understand how his or her actions affect the formula.

10. *Implement.* Many successful programs are “kicked off” with great fanfare—dinner, champagne, balloons, stickers, buttons, caps, jackets, and a host of other remembrances and motivators that help associate positive and fun happenings with “the program.”

On the other hand, many successful programs also begin with management and the design team meeting with employees and describing the program, how it works, and how management promises to support employees. Then, management fulfills that promise.

The first kick-off approach is probably too flamboyant and could backfire with management having a hard time maintaining the momentum and excitement of the kickoff. Many quiet and logically thinking employees might rather have had the party expenditures used to improve productivity and subsequent gainsharing rewards. The approach should be carefully planned, well timed, and congruent with other changes in the organization.

Most important is continued communication and follow through on all promises and plan-design elements. The moment the plan document is typed is not necessarily the best time to sever ties with the consultant. Insist on an implementation plan, then execute it.

Gainsharing: organization development intervention

The first Scanlon plans contained the essential components for success. The first Scanlon plan was a bonus or incentive plan, but it brought about employee involvement and changed management practices as part of the organization development intervention.

Where appropriately used, gainsharing is an extremely powerful organization development intervention. When the 10 steps are followed and when gainsharing is congruent with the environment, the organization, and changes currently planned or underway, then positive change can occur.

During the 10 step process of designing and implementing a gainsharing plan, many exciting dynamics occur:

- Management opens up and shares data previously available only to upper-level employees.
- A cross-section of employees is involved, learning and gaining a new level of respect for the vast complexities of running a business.
- Employees' attitudes change toward costs and the difficulties of managing and making decisions.
- Management's attitudes change as it sees employees understanding business and budgeting concepts.
- Employees are pleasantly surprised to see management willing to listen and willing to share ideas.
- Management is surprised to see employees taking stands on issues that are beneficial to the company rather than just themselves.

A "common-fate mentality" develops: "We're all in this boat together. We need to row in the same direction, and we don't need any of us drilling holes in the bottom of the boat."

Summary

Gainsharing is a powerful organization development intervention that gains its impact from three separate motivators:

- shared rewards
- employee involvement
- management practices

To be strong, all three must receive equal emphasis.

The 10-step process suggested here will ensure against making the costly decision of promoting gainsharing where it is ill suited. A gainsharing plan must be designed to meet the needs of the organization. Thus, do not force an off-the-shelf program to fit the organization; develop a customized design.

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Health Promotion as an Organization Development Intervention

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Imagine OD people sweating! Imagine them huffing, puffing, running, cycling, lifting, and groaning! All these activities are normal in gyms and health spas. Of course, many OD professionals do exercise as part of their lifestyle, but this may become a daily professional practice if comprehensive health promotion grows as an important methodology for organization development.

What I am suggesting—more strongly, espousing—is that comprehensive health promotion for all employees in an organization be accepted as an OD intervention and one that can yield significant, lasting results.

Benefits and costs

Each employee and the sponsoring organization benefit from the results of health promotion. Employee benefits are primarily healthier, happier lives and improved feelings of well-being in relation to the employer. Benefits to employers include significant cost savings, improved employee morale, reduced absenteeism and turnover, and improved productivity. Research and experience show that all this is possible. Health promotion then is a means of developing greater organizational effectiveness.

There is presently a cultural shift in the United States toward living healthier lives. Gurin and Harris (1987) cite research conducted by Gallup that indicates that more people are exercising and changing other health habits, including improving diets and losing weight. In two years, the proportion of adults in the U.S. who exercise rose from 54 percent to 69 percent.

The downside to not being part of this change is the tremendous cost to the individual in health care and in days spent being ill. Industry suffers, too. The costs are quite large. Employers spend the equivalent of 10 percent of their annual payroll costs on health-related expenses (disability claims, life and health insurance premiums, and benefit payments). Since 1950, these costs have risen by a multiple of twenty (Bedynel 1983). Cardiovascular disabilities, coupled with the replacement of workers who die prematurely, are estimated to cost industry \$25 billion per year. Heart disease, cancer, and strokes account for well over two-thirds of all disabilities in the U.S. today (Oliver 1984). Back problems cost business an estimated \$1 billion per year (Gelman 1986).

Although these diseases are chronic, changes in lifestyle and medical treatment may reduce their effect. Controlling high blood pressure or stopping smoking has reduced dramatically the risks of dying from a variety of diseases. People who are able to control their high blood pressure can lower their health risk and the probability of premature death by 20 to 50 percent (Fielding 1982).

Similarly the risk of dying from lung cancer for heavy smokers is 15 to 25 times greater than for nonsmokers. Eighty-five percent of all lung cancer deaths could be prevented if people never smoked. In addition, some studies indicate that one-fourth of the risk for heart disease is attributable to smoking.

Among people who quit smoking, the risk of heart disease decreases within months. The risk of dying from lung cancer decreases as the duration of smoking cessation increases until that risk is only slightly higher than that of a nonsmoker (DHHS 1982).

The corporate setting is ideal for health promotion activities. The payoffs are many and comprehensive.

Exercise motivates people to change health habits. It gives exercisers a sense of greater control over their lives. In turn, the people who have the strongest sense of power over their health are extremely satisfied in all areas of their life, including work (Gurin 1987). This influence of control over health on work lives is so strong that Gallup research concluded, "Taking charge of health relates to a general sense of well-being *more strongly than any other variable* including salary" (Gurin 1987, 55). We also know that employees who are satisfied in the workplace feel better about the organization. As a result, they are less likely to quit, less likely to be absent, and less likely to file grievances (Lawler 1986). Health promotion can help motivate people in their work and help them find more satisfaction.

Why shouldn't corporations take advantage of this by sponsoring health promotion, nurturing it, and reaping productive benefits from it?

The challenge to the corporation is to develop corporate fitness programs that involve employees who are already motivated and to attract as many of the other workers as possible.

Because businesses are social settings, employees can form support groups and encourage involvement and regular program participation. Organizations can influence and promote change in thousands of employees who would otherwise not participate.

Several studies have examined the effects of corporate health promotion programs. Most show a significant cost benefit. A possible shortcoming of these studies, however, is a lack of long-term assessment of program operation and results. Only the "Go To Health" (see below) study looked at improvements in productivity. Obviously, more research is needed, and as more programs begin, evaluative studies should be incorporated into their design.

New York Telephone reported an annual savings of \$2.7 million through nine health promotion/disease prevention projects made available to 80,000 employees (Berry 1981). Illinois Bell Telephone reported a \$254,448 annual cost savings for 38,490 employees. The savings included a decrease in

disability days and a decrease in accidents (Berry 1981). Kennecot Copper's health promotion programs for 7,000 employees reported a \$5.78 return on each dollar invested, with decreases in absenteeism, on-duty accidents, and medical costs (Berry 1981). Equitable Life Assurance Society reported a \$5.52 return on each \$1.00 invested, including reduced absenteeism and medical costs (Wallis 1983). Johnson & Johnson's health promotion program for 2,100 employees reported a 43 percent increase in exercise, a 15 percent decrease in smoking, a 32 percent reduction in blood cholesterol levels, and a 9 percent reduction in sick days (Bedynek 1983). Canadian Life Insurance Co. showed that "high adherence" to a fitness program was associated with a 42 percent decrease in absenteeism and that fitness program participants had a 1.5 percent turnover rate, compared with a 15 percent turnover rate among nonparticipants (DHHS 1983).

The Travelers Insurance Company operates a cooperative health education project in Hartford, Connecticut, including a health/fitness facility and educational programs for employees. Travelers reports that decreases in medical utilization by employees alone practically pay for the cost of the program. In addition, The Travelers' Center for Corporate Health Promotion in Reston, Virginia, reports that their "Taking Care" program, a combined health risk appraisal and educational materials package, results in a 17 percent decrease in total medical visits and a 35 percent decrease in physical visits for minor illnesses among participants (Pfeiffer 1987).

The "Go To Health" project was a comprehensive two-year health promotion program for 1,500 employees of Blue Cross and Blue Shield of Michigan. There were five groups, including one control and four intervention groups. The group that received the most intensive intervention received awareness training, a physical assessment, a health promotion prescription, and selected interventions including aerobic physical conditioning, weight control, nutrition, smoking cessation, and stress modification classes. Extensive objective measurements were made of productivity, absenteeism, health care resource utilization, turnover/retraining costs, and predicted longevity changes with attendant pension costs. Cost-benefit analysis showed a significant cost-benefit ratio in the most intense interventions group compared to the control group. No significant cost-benefit ratio existed for the other, less intense interventions, which included simple awareness training and awareness training plus survey (Faust 1983).

The connection to OD

As suggested earlier, health promotion in organizations should be an OD intervention, not simply a "people" program or benefit. If we accept the Huse and Cummings definition of organization development, as Ledford presents it earlier in this book, several key elements of well-designed, comprehensive health promotion programs cause them to be OD interventions.

Effective programs provide for voluntary participation of all employees, not only executives. Different from the traditional, quality-circle type

activity, employee involvement comes primarily in voluntary participation in a corporate program that allows employees to improve their health and lifestyle.

Individual and group self-direction is possible. Participation, health/fitness goals, and frequency and duration of effort are individual choices. Office groups also provide support by formal or informal influence. Many employees who might not otherwise participate do so through the influence of co-workers. Steering committees at various levels, including management, workers, and union membership, can develop program parameters, policies for participation, and program marketing. They may answer questions about hours of operation, employee cost, use of work time for participation, and scheduling.

Health promotion programs can serve as a strong cornerstone to quality of work life (QWL) programs and can be the basis for starting more comprehensive QWL/employee involvement activities. They offer a significant advantage because initial investment can show dollar returns, whereas several other activities, such as building a new cafeteria, or even more traditional OD interventions, such as team building, cannot. Health promotion programs are also "off-line" and do not disturb management chains of command; nor do they threaten any special power groups.

The second key element of organizational health programs is that they are developed for the primary purpose of contributing to organizational effectiveness. As previously stated, these are not simply employee benefits programs; they achieve improved organizational effectiveness, save costs, improve productivity, and create a healthier workforce. Warner Burke argues that OD develops change that more fully integrates individual needs with organizational goals, and health promotion programs certainly accomplish that. They also strongly influence cultural change, an element that Burke considers essential to OD (Burke 1982).

These programs strongly influence employee quality of work life. They also can affect an employee's personal and family life and community involvement, and can be powerful community relations programs.

Another important element of health promotion is savings to employees. Health promotion programs can be a form of gainsharing, and savings can be returned to employee participants. The payback can serve as reinforcement for continued participation (e.g., remaining a nonsmoker) and also operate as an incentive for having high rates of employee participation. Savings can be calculated from lower health-care costs, lower insurance premiums, reduced workers' compensation costs, reduced sick leave used, improved job performance, and other associated improvements. Formulas can be developed using the many gainsharing plans available and can be decided by employee involvement.

Comprehensive program

The Blue Cross and Blue Shield of Michigan's "Go To Health" program

Figure 1—OD and health promotion relationship

OD	Health Promotion
Organization evaluation/assessment	Needs assessments, health risk appraisals, claims analysis, fitness assessments, etc.
Employee involvement, QWL, quality circles, etc.	Health enhancement committees, employee support groups, involvement groups leading to or deriving from traditional employee involvement groups.
Training	Health education classes, diet nutrition classes, fitness classes, smoking cessation classes, etc.
Policy determination	Smoking policy, occupational safety policy, health promotion policy, gainsharing policy, etc.

proved that comprehensive program design rather than assemblage of disjointed pieces achieved significant improvement in organizational effectiveness.

Many organizations offer what might be considered parts of a comprehensive program: stress management classes, annual physical examinations for executives, blood pressure testing, aerobic dance classes, athletic facilities, or classes in general health and diet/nutrition.

However, comprehensive programs include health-risk assessment, individual feedback and counseling, fitness testing and measurement, prescription and instruction in aerobic fitness, and education in positive lifestyle change. Classes are offered in diet/nutrition, weight loss, aerobic exercise, muscle strengthening, smoking cessation, stress management, and lower-back strengthening. A successful program requires a well-equipped and well-staffed fitness facility that includes a classroom, a complete and competent staff, and a well-designed and tested protocol that governs the medical aspects of the program.

The staff members are crucial in a comprehensive program. They must be well-trained and should hold degrees in a health/fitness field. Program managers should hold the minimum of a master's degree in a health/fitness field. Other appropriate staff would include registered nurses, registered dietitians, and health/fitness specialists and counselors. These specialists instruct participants, conduct aerobic exercise classes, assist in exercise testing, counsel individual participants with special needs, and provide general information. The need for staff training and qualifications cannot be overemphasized. The average college or high school athlete or health spa employee simply does not have the knowledge to work in a well-managed, comprehensive program. The staff always seeks assistance from physicians and cardiologists in conducting physical examinations and exercise stress testing, and in evaluating health risk data.

The goal of the program is to recruit the average employee who last practiced health fitness as a student.

There are many ways to achieve this. One extensively tested and used program was developed by the U.S. Army surgeon general and the Headquarters Department of the Army organization development staff. Currently, the Army Pentagon staff (6,000 military and civilian employees) and the Army Materiel Command Headquarters staff (2,000 military and civilians) use the program. Variations exist in other army organizations.

The army's protocol

The program design includes an individualized protocol, which outlines the process as each participant follows in the program. The protocol is designed to collect medical and health data, provide feedback and prescription, ensure that the program is medically sound, reduce the risk of injury or death, and increase the ability of participants to become healthier. The protocol is an important control and assists in achieving program goals.

Employees progress through the following steps as they participate:

- *orientation*—Participants attend an initial briefing about the total program. They then receive an information packet describing the program and containing individual release statements. The release statements give the employer the right to collect and use data about health, medical costs, sick pay and sick leave, individual participation rates, and health improvement. They also give permission for exercise and medical testing. This is described to the participants who sign and turn in the releases during the orientation. Employees may not participate if they do not grant the release. The staff and the statements stress the confidentiality of the data. Employers and managers cannot obtain information—other than attendance records. Staff members use the information for individual counseling and program design and to report on program success.

The orientation usually takes place in small groups and includes a tour of the fitness facility and a description of the equipment and educational programs.

The orientation packet also contains a lengthy health risk questionnaire, which the participant completes prior to the preliminary assessment. This health risk appraisal, an adaptation of one developed by the Centers for Disease Control, includes questions regarding lifestyle, stress management, and medical, demographic, occupational safety, and other information about the individual's health risk status.

- *preliminary assessment*—All participants undergo a physical examination and a set of tests, including measures of blood sugar and cholesterol levels, blood pressure, body fat composition. In addition, men who are 40 and older and women who are 45 and older receive electrocardiogram and cardiopulmonary examinations. The physician conducts the physical examinations.
- *health risk assessment*—Using all of the data collected, a qualified member

of the staff provides participants with a computer printout detailing their health status and risk factors, and explaining their relationship to the 12 leading causes of death. At that time, the staff recommends lifestyle changes and educational programs, such as weight loss, stress management, or smoking cessation. The staff also classifies participants into low-risk and high-risk categories. Those in the low-risk category (most participants) then receive a physical fitness assessment. Participants in the high-risk category take a maximum exercise stress test under the supervision of a qualified physician. Participants who show evidence of coronary disease are referred to their private physician for further testing and treatment. They return to the corporate fitness program only after their physician clears them for exercise. They may, however, participate in all of the educational programs. Both the staff and the physician closely monitor the participant's exercise program. The staff registered nurse coordinates this effort, which results in benefits, such as the identification of employees who are unaware of their high risk for heart attack or other cardiovascular problems. Appropriate treatment is made available to prevent premature death.

- *physical assessment and prescriptions*—Participants at low risk of cardiovascular disease undergo strength, endurance, and body flexibility tests and a stationary bicycle ergometer test to determine aerobic fitness. From these tests, staff members develop an exercise prescription for body strengthening (not muscle building) and aerobic programs. These programs are integrated with weight loss, nutrition, and smoking-cessation classes.

This preliminary assessment, measurement, and feedback are the backbone of the program. The individual information that comes from it provides the basic incentives for continued program participation. Program payoffs, of course, come from continued, long-term participation, which requires encouraging continued involvement.

- *education and intervention*—Participants, individually and in groups, receive instruction in a variety of classes. Interactive computer monitoring and coaching are also available. Classes are offered in weight loss, nutrition, cholesterol reduction and maintenance, smoking cessation, stress management, and preventive back care and strengthening. Again, the program provides long-term monitoring of individual progress to continue assessment, progress, rewards, and motivation for life change.
- *maintenance*—During this phase, the participant establishes long-term lifestyle change. The staff and interactive computer systems provide positive reinforcement and encouragement to develop lifelong healthful habits. The staff works with each participant to establish realistic goals, set up award programs for goal achievement, and monitor fitness records. Participants receive reminders to attend the program, and special marketing efforts strive to maintain continued interest.

Conclusion

Comprehensively designed health promotion programs are an important

form of OD intervention. They can form a cornerstone for more intensive quality of work life activities and have the advantage of showing dollar returns for the costs of implementation and operation.

They are an important but nontraditional form of employee involvement; participation will not influence work methods, pay, or job design. The health programs, however, can include employee steering groups that influence corporate communications, program operation, and gainsharing. If health promotion efforts are comprehensive and well operated, many employees will participate and the program will contribute to greater organizational effectiveness.

What are the payoffs for OD interventions of this nature? We know that individual health improves. We know that organizations benefit through reduced health-care costs, fewer sick days used, and, most importantly, improved productivity. People develop a stronger sense of control over their health, which promotes a strong sense of well-being, and we can expect to find that this satisfaction with life improves satisfaction with work. Comprehensive corporate health promotion is therefore an organization development intervention that yields significant results.

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Improving Quality and Productivity With Self-Management as an OD Intervention

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OD practitioners have suggested that OD interventions such as team building, quality circles, survey feedback, and employee involvement contribute to improvements in quality and productivity. Judging by the number of OD articles published, the number of companies who have various forms of OD, the number of OD practitioners who continue to make a living, and the persistent episodic case studies reporting successful OD interventions, organization development theories and practice are having some effect. However, the review of OD research that Ledford presents in this book suggests that ambiguity exists in the literature about whether OD interventions actually contribute to improvements in quality and productivity. Ledford also questions whether OD interventions are actually sustained over time.

OD is done for a purpose: to improve quality and productivity. If improvements in quality and productivity are not the end result, then it's time we pack up our OD suitcases and go home, select another occupation, or change the way we do business. To achieve long-lasting increases in quality and productivity, we need to rethink some basic concepts. More specifically, we must add self-management as a micro OD intervention to complement our traditional array of macro OD interventions. Traditional OD practices involve macro interventions, i.e., they intervene with the organization through divisions, departments, groups, or teams. I propose that we add the individual as a micro OD intervention. The hypothesis is this: If an organization has individuals willing and able to take the responsibility for self-management, the organization will have continued improvements in quality and productivity. Stated another way, to the extent that individuals at all levels in an organization have personal inner congruence, that organization will have environmental, organizational, and change congruence at the macro levels. (See Ledford's chapter in this book for definitions of congruence.) If an individual has achieved personal inner congruence, that individual, along with others who have personal inner congruence, will reduce output errors (increase quality) and will increase the ratio of outputs to inputs (increase productivity).

OD practitioners have concentrated their efforts extensively on macro interventions and have assumed that these macro interventions (e.g., employee involvement) will lead to personal inner congruence. However,

practitioners have seldom directed their efforts specifically at individuals to assist them in reaching high levels of personal inner congruence. French, Bell, and Zawacki (1983), for example, focus on the macro level of OD but do not focus on OD at the micro level.

A high level of personal inner congruence is the equivalent of a high level of personal self-management. The idea is simple:

A high level of individual inner congruence
will lead to
a high level of individual self-management,
which will lead to
high levels of quality and productivity throughout
the organization.

The key characteristics for individual inner congruence that will lead to individual self-management and ultimately to increased quality and productivity are listed below.

Inner self-identity

The literature is clear. When individuals have developed their identities primarily from the inner self and not from external sources, they will have achieved a measure of personal inner congruency. They will be capable of developing and maintaining healthy relationships, and likely will avoid the disease of co-dependency (Beattie 1987). Beattie defines codependency as a disease that people have when they let someone else's behavior affect them and then become obsessed with controlling that other person's behavior. This co-dependency hinders work and work relationships, yet this term is not found in organization development literature.

If organization development practitioners wish to create successful, sustained OD interventions to improve quality and productivity, then the micro interventions of surveying and assessing individual self-identities and levels of codependency within the organization are necessary first steps. The second step would be highly individualistic in nature, i.e., individually designed interventions, such as counseling, treatment, and individual self-study. As soon as there are high levels of autonomy (as opposed to codependency) and development of personal self-identity, then traditional OD interventions may be appropriate.

Traditional OD interventions attempt to change the overall environment of the organization. Their purpose is to create an environment that will support traditional OD practices. The purpose of building self-identity and avoiding codependency is to move from environmental support to self support, helping individuals become everything that is possible for them to become.

Inner serenity

An individual who is in a constant state of cognitive dissonance, inner turmoil, role conflict, or constant tension will hinder an organization's efforts at improving quality and increasing productivity. Organizations frequently

direct their OD efforts at team building, employee involvement, group stress-management training, or group conflict management to help individuals find synchronization. These OD efforts are macro interventions. Achieving inner serenity is a project that is both broad and deep. OD interventions do not address the issue because achieving inner serenity or inner peace is a lifetime project for most individuals. When people attempt to achieve inner serenity, they quickly discover a language system and practices that are usually at odds with traditional OD practice, organizational values, and the perceptions and beliefs of other members of the organization. First, words such as spirituality, peace, truth, beauty, perfection, and wholesomeness are seldom found in everyday OD practice and are seldom part of an organization's culture. Second, many employees believe that these words denote something religious and have no foundation in the real world of organizations.

Unless individuals have some sense of inner serenity, however, they will be incapable of responding to an OD intervention or of achieving desired quality or productivity gains. Stress-related illnesses currently cost United States businesses between \$50 billion and \$75 billion a year (Youngs 1985). I have seen no evidence that OD is addressing this problem.

Organizations, however, are changing. Health promotion and occupational medicine professionals indicate that they are helping individuals become healthy, both physically and mentally, and helping organizations save money and reduce expenses. The key indicators, however, are quality and productivity. Are health promotion and occupational medicine activities helping achieve lasting increases in quality and productivity? The proposition that physically healthy individuals contribute to healthy organizations is currently popular. The key indicators, however, will still be improvements in quality and productivity. Achieving inner serenity is beyond the scope of most current health promotion and occupational medicine programs. We may have to look to other professionals to achieve what is needed.

Metanoia

Metanoia is a term traditionally used by evangelists, ministers, and priests. It is not a term found in OD literature. Hard-nosed businesspeople might be uncomfortable with references to this term. As found in the New Testament, metanoia is what John the Baptist was preaching when he called for repentance. He was asking his listeners to have a shift of mind, a change of heart, or to transform their lives. Metanoia, then, refers to change—primarily change at an individual level.

In corporate America, metanoia does have an advocate: Peter Senge from the Sloan School of Management at the Massachusetts Institute of Technology (Weber 1987). Senge conducts three-day seminars for corporate leaders in which individuals focus on themselves, their organizations, and society. He maintains that there are organizations that have become "metanoic." He describes these organizations as having a "fundamental shift of mind, a reawakening of intuition, vision, and personal responsibility."

Workers at all levels "truly believe that they can determine their own destiny."

"Alignment," according to Senge, is a key term. To achieve metanoia, either as an individual or as an organization, there must be individual and organizational alignment. Alignment is similar to Ledford's concept of "congruence." Both alignment and congruence refer to harmony. For an individual, this harmony is twofold. First, the individual must achieve inner harmony or serenity. Second, the individual must experience the harmony that occurs when his or her own personal purpose is in line with the organization's vision, values, and commitments. When individuals are out of alignment, the results are obvious. The individual cannot achieve transformation (change), the individual will suffer a lack of motivation, and the individual's quality and productivity will probably decrease or remain the same.

Senge (Weber 1987) and Ledford have a common theme. They agree that systems thinking is critical. Senge says that the systems have to be in alignment. Ledford says that systems have to be in congruence. They agree that increasing quality and productivity require harmony in the various systems. Following Senge, I propose that there should be a sequential order to achieving harmony or congruence. First, individuals need to achieve inner serenity and be capable of metanoia. Individuals need to achieve harmony with the organization and the various systems within the organization. Following these achievements, the organization itself will begin the process of transformation, and the systems within the organization will become congruent. Then, the traditional OD practices will have a better chance of succeeding and will be more long lasting. Increases in quality and productivity should follow.

Behavioral flexibility

The reasons for individual resistance to change have been well documented (Hultman 1979). In addition, the OD literature has provided strategies for overcoming individual resistance to change (cf: Swanson & Gradous, 1987). The general assumption is that individuals will resist change and that the OD practitioner must allow this resistance to develop and then devise process steps to overcome it. Employee involvement early in the change process is one of the most frequently cited means to overcome resistance. The theory is that, if individuals are invited to participate in planning the OD intervention, changes are more likely to be long lasting. I agree. Employee involvement is crucial to the success of an OD intervention. A preliminary micro intervention, however, should occur before employee involvement and before the change. This micro intervention should be a process designed to help individuals relate flexibly to other individuals. Having a variety of behavioral responses when relating to others is a matter of developing the skill of behavioral flexibility (Bochner & Kelley 1974).

An individual who is behaviorally flexible is one who will look forward to involvement in group and team processes, will not resist change if allowed to

participate, and will contribute to quality and productivity increases. Sub-skills would include initiating interaction, increasing or decreasing giving, asking for feedback, and increasing or decreasing the number of owning and descriptive statements. To the extent that an individual can develop behavioral flexibility, that individual will be less resistant to change.

Involving employees in a change effort often increases resistance if they do not have the interaction skills necessary to relate satisfactorily to others. Rather than contributing effectively, the employee chooses to remain quiet and passive. Before group, team, or organization involvement in a change process, I suggest a micro intervention of relationship building, interpersonal communication training, and one-to-one worksite communication. All of these activities could allow individuals to develop behavioral flexibility.

Lippitt, Lippitt, and Lafferty (1984) contend that OD professionals will need to possess and demonstrate "cognitive" and "behavioral" flexibility in order to meet the future needs of organizations. This is good personal advice for OD professionals and good advice for the OD professional to apply to individuals in an organization change process.

Quality and productivity are two major goals for organizations. To assist organizations in achieving these goals is the challenge and responsibility of OD practitioners. When individuals at all levels of the organization have high levels of personal inner congruence, they will have high levels of personal productivity and work quality. When individuals have achieved high levels of autonomy, inner serenity, metanoia, and behavioral flexibility, then the organization will be ready for change and a macro OD intervention. The organization then has a great chance of increasing quality and productivity.

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Developing a Culture of Productivity at North Carolina Memorial Hospital Through a Leadership Development Program

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As Ledford states at the beginning of his chapter, most United States companies currently recognize the need for improved product quality and productivity performance. To think otherwise is organizational suicide. What organizations do not uniformly perceive, however, is the specific and most appropriate means by which to accomplish this improvement.

Ledford argues that organization development interventions, such as quality circles, gainsharing, and high-involvement plants have helped and can continue to help organizations achieve higher quality and greater productivity. While no guarantees exist, these programs have impressive track records in this arena.

Our own experience at North Carolina Memorial Hospital bears this out. Ten years ago, NCMH began a highly successful productivity monitoring system. Six years ago we turned our attention to quality circles—a program so successful that the circle philosophy of employee involvement and shared decision making has become a way of life in several key departments.

This chapter, however, is not about the successes we have had with these programs. Instead, I would like to explore another method of affecting productivity: establishing a culture of productivity as a precursor to and backdrop against which existing quality and productivity programs can be strengthened. To do so, I will first discuss the appropriateness of a productivity culture for a professional bureaucracy (an apt label for a hospital). Secondly, I will describe the NCMH Management/Leadership Institute and Executive Development Series as an example of a program that is producing a profound culture change at NCMH.

Productivity culture

Akin and Hopelain (1984) assert that a measurable and identifiable culture of productivity exists. Researching diverse industries, Akin and Hopelain identify five critical elements of a productive culture: the right types of people, teamwork, the work structure, the person in charge, and management. These five elements are the keys in differentiating those teams that are highly productive from those with minimal quality and productivity standards.

They conclude their report by noting that beyond obvious elements of good teamwork (which permits each member to know what others in the team are doing, thereby increasing confidence that each would do his or her part), there must be an overall integration of tasks and people so that all of the five critical elements could work together to deliver a consistent productivity message. Thus, the integration of these five elements becomes the basis for a productivity culture—a culture that would greatly enhance an organization's ability to accomplish its tasks and missions.

Certainly, more recent works by authors such as Peters and Waterman (1982) and Deal and Kennedy (1982) support the concept that culture is a key management tool in directing diverse organizational members toward collective goals and actions. For many organizations, culture management may be the key to increasing effectiveness and productivity.

Professional bureaucracies and organization development interventions

Repeatedly, authors have argued that professional bureaucracies are unlikely candidates for traditional organization development interventions. That is partly due to the nature of a professional bureaucracy, which can be defined as an organization composed of groups of professionals joined together to provide a cluster of services for multiple constituencies. Leitko and Szczerbacki (1987) argue that certain characteristics of the professionals themselves make them less receptive to OD programs. Characteristics that block receptivity may include an identification with the occupation rather than with the organization in which the professionals work; an acknowledged control over work activities, such as certification procedures that bypass the organization altogether; and a work design that allows maximal autonomy in the task performance.

Further, these authors believe that by their very makeup, professional bureaucracies that are already highly decentralized and participative need greater integration of tasks and people, rather than "loosening up." As increased participation, decentralized decision making, and autonomy of tasks are primary goals of OD, perhaps professional bureaucracies already have many of the characteristics that traditional OD interventions intend to create.

Delbecq and Gill (1985), long recognized for their work on medical centers, would also agree that OD practitioners would have difficulty effecting change in a professional bureaucracy, although they would approach it differently. They believe that most professionals want less direct involvement in decision making, partly due to the frequently high degree of participation already present in many professional bureaucracies. Professional bureaucracies often contain multiple reporting sources, approaching a matrix design, or are organized as multiple teams or groups. From the highly formalized committee structure to the loosely formed ad hoc project or service groups, "team-ness" is a way of life in most professional bureaucracies. As such, professionals may have as much involvement as they can handle.

Instead, Delbecq and Gill (1985) argue that professionals want a process that ensures that their interests are represented and that the process itself adheres to fairness and due process. Most of all, professionals want a culture or system in which they can believe and trust.

But creating such a culture is problematic. For one thing, too many disciplines often go in different directions. For another, the organizational structure and diffused power centers do not lend themselves to initiatives that rely heavily on control or close monitoring. Thus, Leitko and Szczerbacki's suggestion (1987) of intervening through the infusion of shared values and strengthening networks is intriguing. Shared values provide a common perspective from which all disciplines can operate, and networking helps strengthen authority structures without disrupting power centers or creating new organizational designs.

Thus we come back to the argument that for professional bureaucracies, such as hospitals, the development of a productivity culture, with its emphasis on integration, teamwork, and networking, may be the most effective organizational intervention available to OD practitioners. This has certainly proven to be our experience at North Carolina Memorial Hospital.

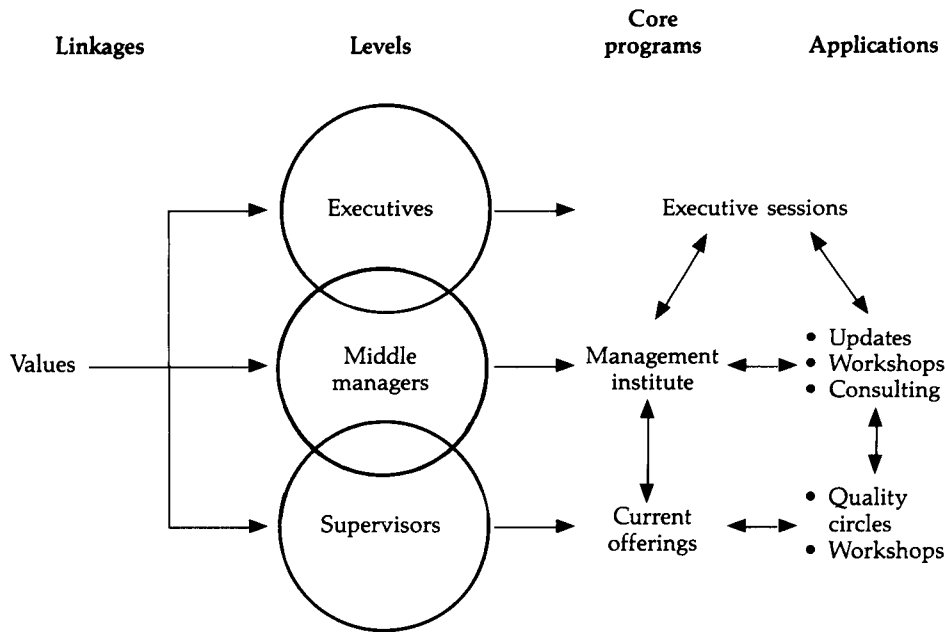
Background information on the NCMH Management/Leadership Institute

In 1984, the executives of North Carolina Memorial Hospital were asked three questions: What challenges will face the organization in the next five years? What consequences will result if middle managers do not have the requisite skills needed to meet these challenges? What models do they recommend for helping middle managers acquire these necessary skills? Their collective answers formed the foundation for designing the North Carolina Memorial Hospital Management/Leadership Institute.

Before describing the program, it is important to note where the Institute falls in the overall scheme for management development. As Figure 1 shows, the Management/Leadership Institute is driven by the values of participative and ethical management practices and feeds application programs. These application programs transfer skills learned in the classroom to on-the-job situations. As shown, the Management/Leadership Institute is the centerpiece for middle management development at NCMH. The Management/Leadership Institute, therefore, has as its first and primary objective providing middle managers with the skills and knowledge necessary to meet successfully the challenges of tomorrow. However, that is not the Institute's only objective. Other objectives include:

- the opportunity for all middle managers over a five-year period to share a common experience out of which a common management language can develop.
- the opportunity for broader networking. In our institution, the networking has to be both within the administrative staff, and between the administrative staff and the clinical professional staffs.

Figure 1—components & linkages



- the design of the Executive Development Series to familiarize executives with component pieces of the Institute. Executives have an opportunity to experience similar classroom education geared specifically to their level, with an eye toward implementing in the hospital concepts they learn in class.

As with the Management/Leadership Institute, the Executive Development Series brought together executives from two distinct institutions: the hospital and the School of Medicine. The intent was to forge greater management linkages between these two institutions.

Thus, we see multiple linkages as a recurring theme throughout both components of this program. It occurs in the Management/Leadership Institute by fostering networking among administrators and between administrators and physicians. At the executive level, networking occurs among executives of the hospital and between these executives and the clinical department chairs in the School of Medicine. Linking also occurs between executives and middle managers of both institutions.

Organizational products

The curriculum, shown in Figure 2, is fairly traditional; it includes many topics important to general managers. However, the results after two years are particularly noteworthy. Several significant products developed out of the Management/Leadership Institute and Executive Development Series. These

Figure 2—NCMH management leadership institute

Fall 1985 curriculum

Contexts for management

- health care & institutional issues
- institutional values & management philosophies
- managing under uncertainty
- planning & managing change
- overcoming resistance to change
- managerial ethics
- managing stress

Managing services

- strategic thinking & planning
- marketing & demarketing: dealing with clients & constituencies
- program planning
- program evaluation & development
- project management techniques
- decision making & problem solving

Managing information and funds

- information systems
- computer literacy
- management accounting principles
- cost determination strategies & techniques
- rate-setting strategies & techniques
- budget preparation
- budget management

Managing organizations & people

- organizational concepts & structures
- interorganizational relations
- group dynamics
- teambuilding
- leadership styles
- managing performance: scheduling and staffing
- managing & developing professionals
- productivity & the quality of work life

include a hospital statement of values, a strategic planning structure, and several clinical programs. Another significant outcome was the forged and continued networking—a result of participation in class.

Although the statement of values came directly out of the Management/Leadership Institute and the Executive Development Series, none of the other products was solely the result of these programs. Other organizational factors were also at play. Nevertheless, most observers felt that the two educational programs either helped expedite or gave focus to many initiatives already under way.

Figure 3—Statement of values

North Carolina Memorial Hospital is a caring institution that values excellence, effectiveness and efficiency. We care about those we serve and those with whom we work. We are devoted to public service of the highest quality and are committed to doing the right thing and doing things right—fairly, openly and honestly.

Patient care

As a leader in health care delivery, our primary mission is to provide quality patient care. We value our patients as people who deserve the best we can offer in responding to both their physical and psychological needs. On behalf of patients and their families, referring physicians, insurers and all others we serve, we strive to provide quality patient care competently and economically.

Research and education

As an institution of the University of North Carolina, we foster research and learning. We value research activities that help expand knowledge and enhance health care delivery. We value the education of health care professionals who will exemplify the best qualities and standards of their profession.

Citizenship

As a public entity, we are accountable to the State of North Carolina to promote and improve health care and to serve as responsible stewards of the public's resources. We serve the community with concern for our neighbors and a commitment to good citizenship.

Human resource development

As an organization, our employees, affiliated professionals and volunteers are our most important resource. We value and support autonomy, creativity and innovation. We are committed to the development of our human resources to their full potential, for both current performance and future growth. We value collegiality and teamwork, open communication and due process. To care for others, we must also care about ourselves.

*Adopted by the Board of Directors of
The North Carolina Memorial Hospital
January 1986.*

Statement of values

In the Executive Development Series, one week prior to the inaugural session of the Management/Leadership Institute, participants drafted a preliminary statement of values for the hospital. This initial draft then went to the 40 participants in the Institute. There, during the course of a classroom session on corporate culture, participants refined this statement. This revised document went back to the executives and ultimately to the full 150 management cadre for their review and revision. The statement changed through its five drafts.

The statement of values went one step beyond merely appearing in print. It formed the eight areas of management emphasis on which the budget and planning cycle for 1986 were based.

In early 1987, the hospital's board of trustees approved the statement of values, which appears in Figure 3. These values, which appeared in employees' pay envelopes, on plaques, and at the entrance of the hospital, reflect a collective perspective on what the institution strives to achieve in its daily operation. It is as much a clarification for ourselves as it is a statement for outsiders.

Strategic planning structure

Participants in the Management/Leadership Institute saw a need to formalize the hospital's strategic planning process. Their request for a structure, perhaps reflective of what Delbecq refers to as the need for a due process system, was addressed in late spring of 1986 when the board of trustees formally adopted the strategic planning model in Figure 4.

Of particular note is the process of integration. The hospital integrated its operational and facilities planning with clinical program development. Traditionally, planning of the clinical program had been solely the responsibility of the School of Medicine. By this integration, the planning of one organization transcends itself and is linked to that of a sister institution. Equally significant is the inclusion of a new ventures component to strategic planning.

Other products

Managers frequently report that implementing new programs is easier simply because of the network linkages they formed while participating in the Management/Leadership Institute. A prime example is the initiation of a prenatal exercise program. Prior to the Institute, most managers did not understand the program and, therefore, it remained unused. The program's primary champion attended the Institute, as did two members from key departments critical to implementation of the exercise program. Through their contact, the program gained formal approval in the spring of 1986.

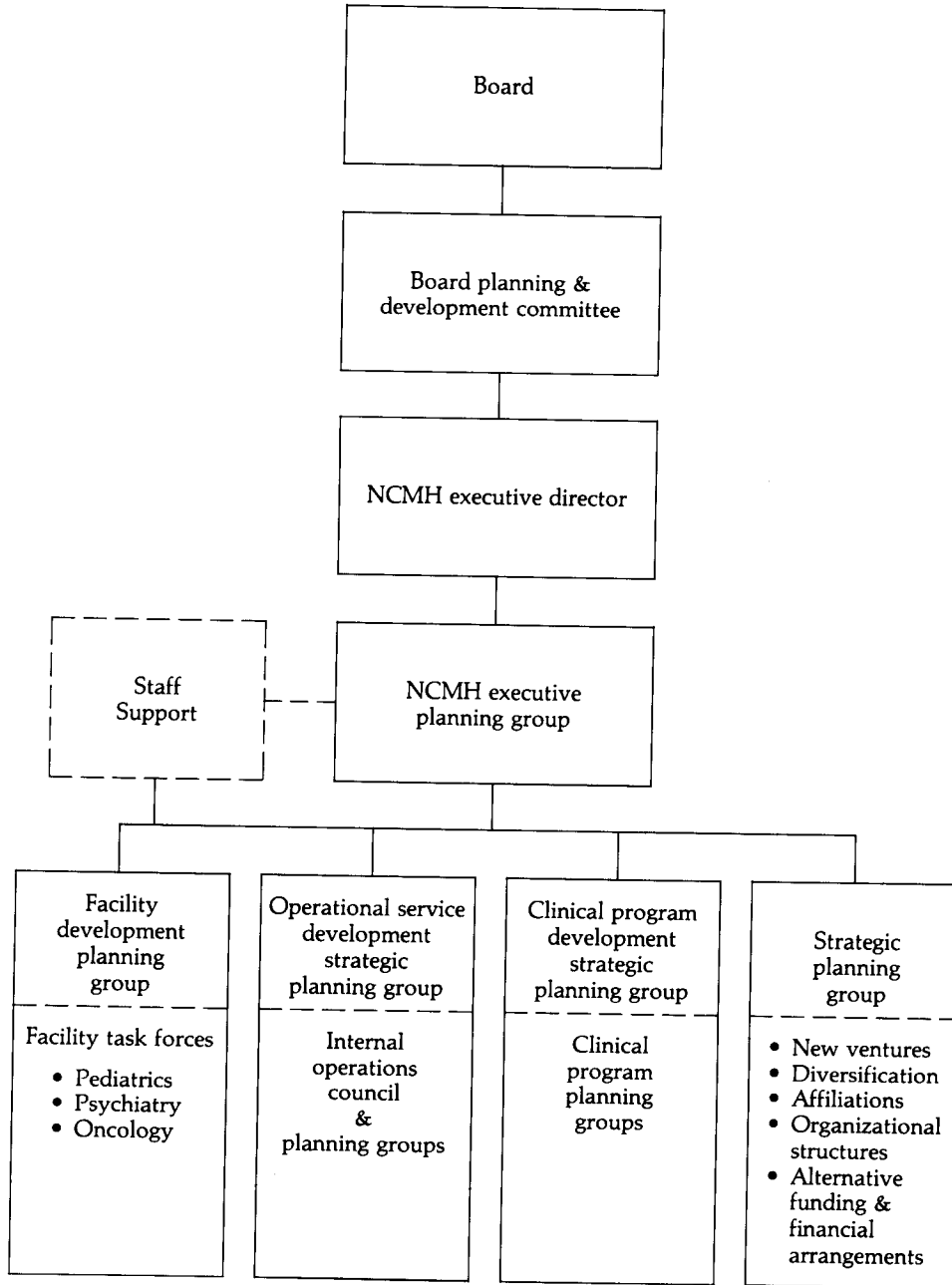
Physicians, too, tell us that participation in the Management/Leadership Institute has been valuable. As anyone in health care will attest, the gulf between administrators and physicians is often wide. Our experience is no different. Nevertheless, after attending the Institute, many of our physician directors were more easily empathetic to the concerns of administrators, especially in financial planning. The common language is developing.

Other initiatives continue. One exciting possibility is the development of a grants-for-initiative program, which is a direct response to the need for a formalized and visible process that solicits and rewards entrepreneurial activities in the hospital.

Conclusion

We are convinced that the educational program has been successful. To understand the reason, perhaps it is best to return to Ledford's concept of congruency.

Figure 4—Strategic planning structure



The North Carolina Memorial Hospital

Certainly, much discussion in the health-care industry has concerned the need to equip health-care managers with the skills they need to address increased competition, greater profitability, and sustained quality. These issues are deep-seated industry concerns. Any program, therefore, that tried to tackle these issues would automatically attain environmental congruency.

It also made sense for the hospital to use an educational vehicle as a route for change. As a component of the University of North Carolina system, the hospital respects education, has a long tradition of management/supervisor development, and has easy access to educational resources.

An educational intervention also suited the types of changes we wished to produce: common language, shared values, networking, and new directions. That the outcomes produced—the statement of values, strategic planning structure, and greater linkages—were successful attests to the appropriateness of this vehicle for these desired changes.

Thus, there was congruency between the overall need for the change and the hospital's environment, and congruency between the intervention chosen and its outcomes—what Ledford refers to as change congruency. This helps explain why the Management/Leadership Institute and the Executive Development Series have produced such immediate and significant results.

But what of developing a culture of productivity? Although no one would expect immediate cultural shifts, we are seeing some early indicators that are very encouraging. For one, managers better understand the productivity monitoring system and are using it more effectively as a management tool. Quality circles are focused on productivity and continue to produce significant results at the departmental level. Issues of cost and resource allocation increasingly are being tackled in a collaborative rather than adversarial way. While this progress is encouraging, we fully recognize that more change must occur. We need a better means of rewarding both individuals and programs that make and sustain a productive culture, by such design elements as hiring the right people, encouraging teamwork, providing sound management, and defining integrated work structures. We have laid a sound foundation for such systems changes; now these design elements must be implemented. This very well may be the challenge that faces all professional bureaucracies in the next five years.

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Implementing a High-Quality/High-Performance System

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Rapid Japanese advances in the world marketplace have forced United States industry to look at itself with new eyes—and through these eyes, companies do not like what they see. As shown in Figure 1, a chart published by the United States Bureau of Labor Statistics (1985), Japan rises head and shoulders above the industrial nations of the world in annual productivity improvement

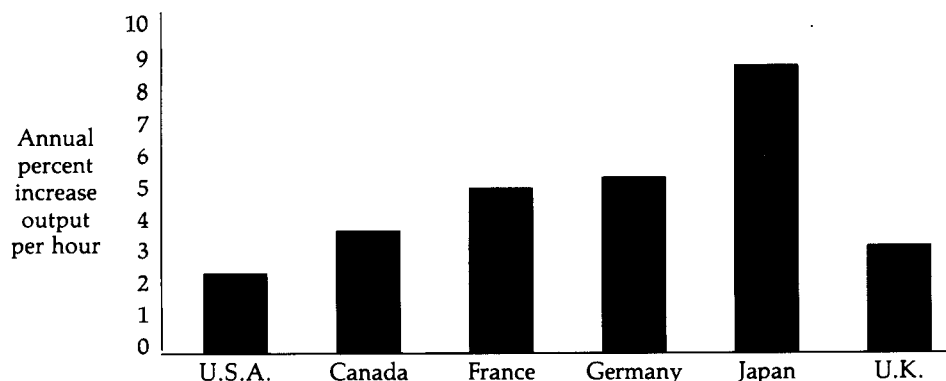
During the 1950s, the label “Made in Japan” elicited peals of laughter from procurers seeking quality products. How much the world has changed! With the advent of pioneer thinkers like Deming, Shingo, and Ishikawa, and associations such as JUSE (Japan Union of Scientists and Engineers) and the Asian Productivity Organization, Japan has been transformed. Today, “Made in Japan” is a sign of superior craftsmanship and quality.

Now under greater competitive pressure, U.S. industry has begun to take up the gauntlet for economic survival. A small number of U.S. businesses are adapting Japan’s lessons on innovative manufacturing techniques and employee involvement strategies into an approach that addresses the capabilities and values that the U.S. worker embodies. The approach, still in infancy but growing stronger every day, is high-quality/high-performance systems (also known as high-involvement management, socio-technical design, high-commitment organizations, etc.). High-quality/high-performance systems in the United States differ markedly from the well-run companies in Japan. While our Asian competitors rely on their cultural heritage of group harmony and cooperation, we are deliberately tapping into the rugged individualism and “can-do” spirit of the U.S. worker. Each culture, by necessity, must design work to match the attitudes and values of its people in order to spark energy, quality, and pride.

This paper presents an example of implementing such a system. Foundations of a high-quality/high-performance system reside in the integration of manufacturing techniques, such as just in time (JIT), total quality control (TQC), statistical quality control (SQC), and statistical process control

Note: Weyerhaeuser is a diversified Fortune-100 company. This change effort consists of three unionized plants with 550 employees. The plants range from 15 to 30 years old and serve as a major corrugated container supplier in the Western United States, with a sales volume of \$110 million.

Figure 1—Manufacturing productivity 1950–1980



(SPC), and workplace behavioral science principles, such as individual motivation, management style, and organization norms. This chapter assumes that readers have a working knowledge of these elements and therefore focuses on the ingredients essential for the successful implementation of a high-quality/high-performance system.

Foundations of a high-quality/high-performance system (HQ/HPS)

Fundamental to this change effort is the premise that all members of the organization need to know where the business is going and what behavior is expected of them. This information empowers people to make sensible decisions and contribute to organization performance. Weyerhaeuser Paper Company used several vehicles to address these needs:

- company philosophy—Senior executives articulated underlying values and provided operating managers with guidance regarding the proper foundations of business decisions. Topics included management style and role, people, customers, quality, safety, citizenship, suppliers and work environment (appendix A).
- region vision, 1990—Area management developed a clear picture of the goals of the organization's business plan and culture targets. People then had a meaningful guide to goals in performance, sales, output, profit, people, manufacturing, and innovation (appendix B).
- policy—The company provided a description of expectations for employees' individual behavior and performance. It showed how people throughout the organization could best contribute to the high-quality/high-performance system transformation.
 - All employees were to meet once a month to review plant performance and learn how their work contributed to and impacted the plant.
 - All employees were to participate in problem solving groups which had the goal of personal growth and continuous improvement of cost and quality.

- Supervisors were designated to be the leaders of these groups, with the responsibility of involving people in solving problems.
- Managers were to set the example by using group problem solving techniques at management meetings and sponsoring task forces to improve the results of the plant continuously.

A four-pronged attack for implementation

Once the company set down its fundamental philosophy and business direction, it addressed multiple elements and levels in the organization in order to integrate all aspects into the system's vision of the future. Initial elements were

- management practice
- employee education and training
- small group activities
- customer/vendor relationships

High-quality/high-performance systems require a participatory style of management, not easy to introduce in an existing system of three plants up to 30 years old. With a history of strong management control, where people were rarely called upon to think and reason, a gradual introduction of the concept of participation was necessary. With the help of the senior managers, we have wobbled our way along the continuum of employee involvement, making steady progress toward a blend of power and competence. As our people gained competence, we gave them power to make decisions. A new performance management system changed management practice by aligning all goals along the chain of command. Key performance indicators used to assess performance (output, cost, waste, safety and participation) were the same ones by which employees tracked their progress while working. This approach kept people focused on the right issues and minimized paperwork duplication. By an iterative process, we set goals and reviewed performance quarterly.

A second approach in the implementation of HQ/HPS was employee education and training in the business. Technical and socio-training began, using managers as trainers to facilitate the style change from high control to high participation. All employees learned about our marketplace and competition, the basics of quality, and the principles of innovative manufacturing. Next, employees learned meeting-management and group problem-solving skills were addressed, then statistical quality control and statistical process control.

Monthly assemblies, which all employees attended, taught our people about the business and showed how individual performance contributed to plant performance. Key indicators reviewed included: safety, customers, quality, delivery, inventory, waste, people involvement, and profit. The assemblies helped the company set goals and field employees' questions (appendix C).

The third prong in the implementation was the start-up of small-group

problem solving. Groups used scientific methods, such as statistical analysis, cost/benefit evaluation, and decision-making models, in regular staff meetings and special weekly sessions. Multi-disciplined task teams tackled complex systemwide problems, while small groups, following a classic quality circle model, addressed plant-specific obstacles to success. The groups selected diverse projects such as defining a new booking/scheduling system, smoothing product flow, reducing waste, and developing requests for capital expenditure.

Customer/vendor relations is the fourth avenue of attack. We have yet to implement this phase in our high-quality/high-performance system. It is, however, critical to any organization interested in increasing quality standards and reducing costs. Refining customer specifications will give us opportunities to meet current requirements while anticipating new demands and markets. It also will strengthen relationships and help us achieve the status of "preferred supplier" with our customers.

Education and training are key to full customer satisfaction. We need to learn about our customers' packaging systems needs so that we can develop innovative and diversified new product designs. Customers need to learn about our performance and service capabilities so that they can integrate our packaging and product know-how into a shared business destiny.

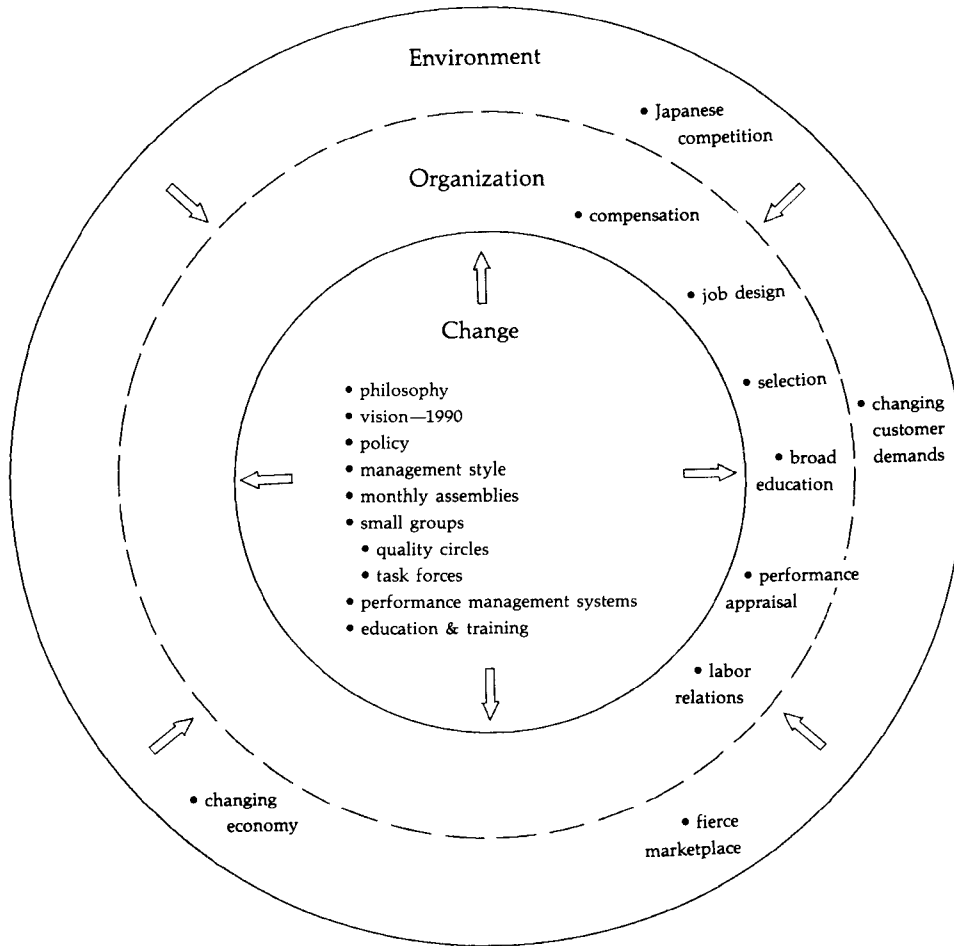
Strong long-term vendor relationships support the profitability goals of our business. Time and effort used to develop and refine our raw materials specifications pays off by enabling vendors to provide us with the same high performance and service standards that we provide to our customers. Since the concepts of high quality/high performance systems are only now taking hold in the United States, we must be able to explain to vendors precisely what we mean when we ask them for a predictable product that meets specifications on time, every time. Once they understand our need for high standards, vendors can then institute the training necessary to improve their own manufacturing processes (e.g., JIT, SQC, SPC, etc.). Once they have upgraded the predictability of their product, they can become our preferred supplier and satisfy our requirements.

Congruency model

Figure 2 illustrates our current process of installing a high-quality/high-performance system. Concentric circles represent Ledford's model (presented earlier in this book), which requires congruence among environmental, organizational, and change elements.

Environmental forces that push for a change in the traditional organization to high-quality/high-performance include the Japanese threat of supremacy in the world market; changing customer demands, as customers concerned with quality and productivity costs expect more from their suppliers and vendors; a fierce U.S. marketplace, where competitors aggressively pursue the available customer base; and a dynamic economy that surges and recesses with the tides of world commerce. These elements act on the organization

Figure 2—Congruency model



from outside, pressing it to respond and adapt to diverse demands. In a climate of mergers, acquisitions, and bankruptcies, the organization struggles to upgrade its standards so it at least can survive and, if possible, excel.

Congruent with environmental elements are those items appearing in the inner circle under "Change." These components, outlined earlier, form the critical mass essential for the entire organization to transform eventually from a traditional state into a high-quality/high-performance system. They lead the change, and once they become an integral part of the organization's functioning, they start pulling additional elements into the inner core. Thus, the inner circle expands to encompass the middle circle, "Organization," and all elements inside and outside the organization become congruent.

In this case, the organization circle includes outstanding issues, as well as

those not yet fully addressed by the elements inside the inner change circle. The change already has affected job design, selection, education, and performance appraisal, but these need more attention. As people mature in their new roles, responsibilities expand and decision making becomes more significant. People focus not just on their individual tasks, but identify with the work they must accomplish. Boundaries among people and tasks blur; peers hire workers and appraise their performance and eventually determine their pay. As yet, compensation has not been addressed, because the compensation system is a lag system—one that is pulled into the change by the pressures of those elements that have preceded it.

Once elements in the core circle reach critical mass, the change will absorb all formal and informal components left in the organization circle. Congruency then exists among the environment, organization, and change circles; the transition stabilizes as diverse pressures equalize.

Conclusion

Implementing a high-quality/high-performance system is obviously a complex organization change. It is complicated in this particular case by the inclusion of three existing plants which are unionized and geographically dispersed. In order to build critical mass for propelling the desired change, it was necessary to adopt an approach that included many elements and levels simultaneously. In this example, an initial “four-pronged attack” was described which addressed the integration and alignment of multi-level changes. These changes were consistent with both the company’s projected vision of itself in 1990 (inner circle of change) and the fierce marketplace (environmental circle), which insist that companies wishing to survive and compete in the world of tomorrow must build a better quality product at a better price today.

APPENDIX A: SHIPPING CONTAINER DIVISION PHILOSOPHY STATEMENTS

Vision of our business challenging the 90s

As an organization, the Shipping Container Division is on its way to preeminence in the packaging industry. Our people are committed to excellence in the performance of all tasks and have an obsession with providing *full customer satisfaction* in the form of goods, services, and information.

We are recognized as the *quality leader* in the packaging industry and are providing full service and quality products to our customers. We are known as innovators in serving our customers and regarded as experts in our field. We have become an authoritative source of information to our customers and our products are not limited to fiber-based materials.

Customer satisfaction is the standard used to measure quality, and quality performance is first among measures of our success. We are constantly measuring customer satisfaction at the appropriate locations to report and improve our performance.

We are a cohesive, aligned organization of branches and support organizations supplying the packaging needs of the selected markets we serve. Branches actively support and cooperate with each other for mutual improvement. Our consistent focus is directed at common ways to fulfill our Vision and Philosophy Statements with common policies, practices, and methods.

Information flows freely across all locations and active exchange of information is the norm. Our management system acts in a participative manner that encourages free and open discussion. It deals with both individual and collective responsibilities and has a high level of expectation for performance.

Our Total Quality Control System is in place throughout the Division at all levels and all locations. Our processes have been stabilized, and data provide the basis for continuous improvement in all activities. Continuous improvement is the central way we view our activities. We continuously challenge the status quo.

People and the jobs they perform are regarded as the backbone to driving our organization. We have in place, therefore, selection, training, development, and educational systems for all employees. Structured group activities and suggestion systems are in place throughout the division and are used to provide continuous improvement and serve as a vehicle to involve all employees in our efforts. The involvement of people in decisions that directly affect them is used to build an effective and committed organization.

A compensation system is in place that is clearly understood and rewards for performance, knowledge, and responsibility. Compensation is dealt with as a long-term investment in our employees.

Our plants and offices are noted for cleanliness and orderliness and have become models for our Company and Industry. Our obsession for safety, attitudes, practices, and working conditions has eliminated all injuries. Education and improvement efforts assure that these conditions will exist forever.

We have developed our own manufacturing systems—both process and equipment—and lead industry innovation in both areas. We have developed close relationships with our suppliers, and exchange data and information that provide suppliers with specifications and criteria to help them serve our needs. We are the highest quality supplier with the lowest operating cost base in our markets.

We have a marketing strategy used across the Division that provides new and innovative products and services to our customers. Our Division marketing organization also provides packaging systems, market information, sales strategies, and customer research that is used throughout the system.

Our plants have developed market uniqueness and/or niches that remove us from the commodity culture to one that helps us through economic cycles.

Wide use of marketing data and understanding of customer needs drive these activities.

The Shipping Container Division is an excellent contributor to the Weyerhaeuser Paper Company and meets or exceeds all the Paper Company objectives.

Shipping Container Division Philosophy Statements

Quality

We believe that quality first and dedication to full customer satisfaction are the driving principles of our business and the basis for our day-to-day behavior. This fundamental belief shapes our business practices and is the principal source of our goals and policies and will be the primary means of achieving excellence.

We believe that full customer satisfaction and total quality depend on the coordinated efforts of everyone in or involved with our organization.

Customers

Our customers are the central focus of our business, and therefore we will be responsive to their needs. We believe full customer satisfaction is achieved with quality products, on-time delivery, value pricing, and full service while dealing with integrity and honesty at all times.

We value long-term relationships with our customers. We have the obligation to develop, maintain, and build upon these relationships by

- understanding the nature of our customers' businesses and the end-uses of their products;
- ensuring joint involvement of our employees with our customers' businesses and activities;
- understanding the future needs of our customers.

We believe our future lies with a customer orientation and our creative ability to provide our customers with new products and innovative services.

People

We attach a high value to people and believe that they are the core of our business.

- *Human needs*—We believe that it is essential for every member in our organization to have these human needs satisfied:
 - opportunities for personal and professional growth
 - equitable and fair treatment, regardless of race, color, or sex
 - recognition based on contribution
 - pride in belonging to our organization
 - job security

- *Involvement*—We believe people should be involved in decision making and problem solving, particularly regarding issues affecting them.
- *Climate*—We believe it is vital for us to have a work culture that encourages the free and open flow of information and ideas.

It is important that we maintain a climate where mistakes are regarded as opportunities to learn rather than occasions for punishment.

- *Common destiny*—We share a common destiny with our people, and our success will depend on how well we all work together. We believe the union organizations to which our people belong are stakeholders in our business. We will work toward the development and maintenance of a cooperative relationship.
- *Education*—We believe that our potential as people, and as an organization, is limited by what we don't know. Therefore, we place a high value on learning and people who are continuously involved in some form of education or training.
- *Role of people*—We believe the major contribution and role of people in our organization comes from their skills and their commitment to continuous improvement.
- *Teamwork*—People are unique and should be treated as individuals. However, there are values and benefits to working as a team. We encourage every unit in our Division to build itself into a team, to manage and use teams as the fundamental way to get things done and discourage unnecessary internal competition.
- *Expectation of excellence*—We believe the achievement of excellence requires people who
 - are willing to learn, share, and take risks;
 - show enthusiasm, optimism, and a “can-do” spirit;
 - actively seek out problems and their solutions;
 - set high expectations and are results oriented.
- *Capable people*—We believe capable people with good ideas and creative solutions are widely distributed throughout our organization, and they should participate in our continual improvement.

Safety

We believe an absolute obligation to everyone's safety is essential for us to be an excellent company with highly committed people. We believe that all accidents are avoidable. Safety should never be compromised. Our only standard for safety is no accidents and no near misses. Top management has the primary responsibility for ensuring that everyone operates in a safe manner and under safe conditions.

Work environment

We believe that in order for us to deliver quality products and services to our customers, we must have a quality work environment—one that is com-

pletely safe, always orderly, and very clean. Our plants and offices should be pleasant places to produce quality goods and services for our customers.

Selection

We believe that the selection of competent and committed people for the Shipping Container Business is one of the most critical activities that our managers do. We believe it is vital to ensure that the best and most valid techniques and procedures are utilized to ensure the identification and selection of the most qualified candidates at all levels of the organization. We will not discriminate on the basis of race, creed, age, sex, and/or handicap.

Suppliers

Our quality is highly dependent on the quality and service we receive from our suppliers. As do our customers, we expect value on all goods and services based on quality, price, service, and delivery while dealing with integrity and honesty.

We value long-term relationships with our suppliers. We have the obligation to develop, maintain, and build upon these relationships by ensuring that

- they understand the nature of our business and the end-use of our product;
- they are involved in our business and activities.

Citizenship

We believe all of us as individuals and as a company have a responsibility to the communities in which we do business. It is our desire to be an asset to the community and to provide a desirable and stable place of employment. We will support and encourage our people to participate in organizations that work for the betterment of the community. Furthermore, we will be viewed as a company that actively protects the environment.

Management role and style

We believe the role of management is one of service to the organization and its people—to serve, not be served.

Dimensions of role:

- *Leadership*—Managers influence the behavior, tone, attitude, and expectation of others in the organization. Therefore, it is important that our managers
 - provide clear direction through policies and goals in a manner that achieves understanding and acceptance;
 - exhibit day-to-day behavior and practices that are exemplary and reflect the values represented in our philosophy.
- *Resource providers*—In order to achieve these goals, managers must provide the methods, education, training, equipment, and other support systems necessary to carry out our policies, goals, and directions.

- *Development of people*—The most significant contribution management can make to the long-term success of the business will be through the selection, teaching, and development of people in our organization. We place a high value on education and on managers who acquire the skills and ability to teach others.
- *Team*—We expect managers to understand the meaning of teamwork and cooperation, and encourage the development and use of teams throughout their organizations and as the fundamental way to manage the business, solve problems, and strive for continuous improvement.
- *Participation*—We believe participation satisfies the human need for involvement and is an effective way to get things done.
We expect managers to involve people in the decision-making process who are most affected by the decision and who have the most knowledge and information.
- *Information*—People have a right to know how they, the unit, and the company are doing against the established goals.
- *Interpersonal relations*—We expect our managers to promote, develop, and sustain interpersonal relationships with people. Managers must be visible and available, not just to support, but to “roll up their sleeves” and help—to serve. We expect managers to treat people as individuals and respect their dignity. We will deal with each other directly, with candor and honesty, so we can work towards achieving a culture that is free of fear.

APPENDIX B: VISION—OUR MENTAL JOURNEY INTO THE FUTURE

1990 goals

- 2.5 billion square feet
- 6.0 million dollars
- 17.0 percent CORAGA

Overview

Through 1990, the Southern California corrugated market will be experiencing sustained growth. Our vision is that Weyerhaeuser, Southern California, will be growing at an annual average rate of 9 percent. We will ship 2.5 BSF with an operating profit of \$6 million. This growth is based on interim decisions to:

- lead and dominate selected end-use segments—aggressively penetrating both agricultural and industrial markets;
- seek out new applications and markets for existing products;
- develop innovative and diversified new product designs that outstretch the grasp of our competition.

Our customers

Our customers perceive us as the industry leader in professionalism and innovation. Compared to our competitors, we provide higher quality and better service—and do it consistently to achieve full customer satisfaction.

We are our customers' first-choice supplier, offering them consultation and complete packaging solutions.

We enjoy long-term customer relationships with companies that enjoy positions of leadership in their industries, as we do in ours.

People

As we each learn and grow with the business, our individual contribution increases and we share in Southern California's success according to our individual contribution.

We find effective ways of doing things, everyone learns them, and does them in standard ways.

Each of us actively looks for ways to improve the operation through individual and group problem solving. We do whatever work is necessary to get the job done, offering help to others, without regard for perceived boundaries.

Management provides the environment in which skills can grow and provides appropriate guidance. Managers lead, coach, and train. New skill development is the responsibility of each employee.

The world recognizes Weyerhaeuser for growing trees; Southern California is recognized for growing people. People are developed internally for all key positions. Our business is run by people who know the business and mean business.

Manufacturing

Our manufacturing capability is regarded in the industry as a key competitive advantage.

- Customer needs are integrated with manufacturing.
- We are the lowest-cost producer in all major markets in which we participate.
- Product lines are constantly evaluated for design improvement and cost reduction.
- Our plants are fully utilized—running at least three shifts, five days a week.
- Supplier relationships are strong and long term. Our suppliers understand our high performance standards and enjoy the benefits of a shared destiny.

Innovation

We manage innovation as a key strategic and financial business element. It is the lifeblood of our success.

- Customers see us as providing packaging alternatives to meet their changing demands.
- All employees participate in innovation. Inside the organization, our internal processes are state-of-the-art; on the outside, our packaging and systems designs are recognized as being the corrugated industry leaders.

APPENDIX C: AGENDA FOR MONTHLY ASSEMBLY

Opening statement

Safety (month, year-to-date)

- all injuries: workers' compensation claim rate plus on-site first aid
- recordable injuries: incident rate (OSHA 200 log)
- recurrence injury: recurrence of a prior injury
- lost-time injuries: lost workday case rate (OSHA 200 log)
- lost-time days: lost workdays (OSHA 200 log)
- review specific accidents (using names and true-life facts)

Housekeeping

- management commitment statement
- progress-to-date

Quality (month, year-to-date)

- on-time delivery
- number of complaints for month; total dollars
- all good news about quality since last meeting (new business, customer compliments)
- progress-to-date

People involvement

- management commitment statement
- progress-to-date

Profit/loss statement charts (month, year-to-date, last year's performance)

- MSF per thousand shipped
- operating profit
- waste cost
- direct labor variance

Plant efficiency charts

- productivity index (month, year-to-date)
(highlight exceptional department/areas)

Goals for improvement

Wrap-up and business review

Field group for feedback

Encourage people to submit questions on forms provided and ensure them of answers within one week.

- number of questions collected _____
- date when all questions were returned with answers _____

Supplier Improvement: Extension of the Manufacturing Process

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The worldwide competition for products and service has forced organizations to be innovative in improving quality and increasing productivity. The issue of survival in the early 1980s was real, and it required 3M to change culture and functional operations with its suppliers. Initiating change was difficult; our successful past was an impediment to our future.

Developing the plan

Managing the change toward developing a strong participative partnership with our suppliers required a strategy. In 1980, 3M established a task team to study the issue. The three major necessary changes were reducing the number of suppliers, the number of inspections, and the amount of inventory. The team developed a plan to communicate a clear vision to the internal organization and supplier community nationwide.

The vision stated where 3M was heading and why it was necessary for 3M to change. Vision leadership came from 3M's top management. This is essential. The most frequent cause of failure of any quality improvement process is the lack of involvement by or indifference of top management. Passive support is not enough; visible participation is crucial.

Communicating the change

Through meetings across the country, in 1981 and 1982, 3M began informing its supplier community. Our suppliers learned that the new 3M culture was necessary to remain competitive in the 1980s, and no longer was "status quo" acceptable. To increase quality and productivity, our behaviors would require change. Repeatedly accepting material from suppliers that did not meet specifications was reinforcing behaviors contrary to a quality standard. Sampling plans would call for zero acceptance of reject material. Our new posture with suppliers would require a greater participatory work culture, more openness, and less control. This new environment would reward behaviors that reinforced quality improvement, and some suppliers would not survive.

Once 3M communicated its vision to improve quality and productivity, it required an internal process and organizational structure to accomplish the task. We fully realized that the quality of our products could be no better than the quality of materials and parts we received from our suppliers. To be

successful, the understanding and cooperation of our suppliers were paramount.

The initial needs assessment revealed that the opportunity for supplier quality improvement was equally an internal and external matter. Communications, incomplete specifications, and disagreement over material testing and evaluation surfaced as major concerns.

Before our supplier improvement process could progress, 3M needed to change its priorities and resources. Therefore, 3M gave internal technical support to clean up past sins before initiating the improvement process.

Educating the teams

We began the immense task of education and training. A cross-functional team of employees involved in purchasing and quality developed an internal three-day seminar to train 3M employees. The training emphasized the development of personal skills needed to manage the supplier improvement process and to achieve corporate congruence on common objectives that would affect our business. The training also revealed the importance of cross-functional teamwork; quality objectives could not be achieved without individual commitment to quality and a group commitment to work together for improvement.

Teamwork, however, is not a natural method of work. It must be obtained through daily practice. 3M, like most United States companies, emphasized and rewarded individual behavior and achievements more than group accomplishments. Undertaking supplier quality improvement projects on a team basis required new insights into group behavior, from top management down through the hourly workers.

Additional support was available within 3M. The human resource department offered a multitude of courses and techniques on group processes, group dynamics, and group motivation so that employees would understand better the functions, needs, and processes of group activity.

Human resource personnel also tied group training, new organizational structure, and new management techniques, such as performance management, to tangible business programs that are quality related. This has accelerated the supplier improvement process.

After the training the implementation effort and supplier quality improvement process were ready for transition to the divisional operations. Division congruence was necessary to establish common objectives and management commitment. The initial phase included definition of goals, team establishment, supplier selection, certification requirements, survey team establishment, and supplier audit plans.

Involving manufacturing and suppliers

Parallel with the supplier improvement process, the manufacturing division was establishing optimized operations (3M Just-in-Time) to reduce inventory and shorten cycle time. Both of these goals required a dynamic supplier improvement process. Supplier certification—the ultimate end—would pro-

vide the efficiency for quality and productivity. The ability to provide small, frequent lots of material (inventory reduction) and quality material to the line without inspection (yield improvement) would support the active optimized operation goals.

3M then expanded its teamwork to include employees and suppliers. The division supplier survey team completed the survey and with the supplier task team, developed a survey action plan and supplier assistance plan. An additional key element was that the point of control was at the 3M manufacturing location, not the division administration central location. The urgency and ownership issues in manufacturing, not purchasing or the laboratory, are important for action and results. The divisions expect each supplier in the process to carry the development toward optimization and certification.

Supplier certification involves an understanding between 3M and its suppliers regarding 3M's product, quality, and service expectations. (3M divisions grant the certifications, which apply only to the specific supply facility, process, or product.) When a supplier satisfies 3M divisional expectations, 3M eliminates testing and inspection. 3M relies on the supplier's systems and demonstrated ability to deliver a product that continues to meet quality and service expectations.

The development, in 1982, of two 3M supplier councils—a hardgoods commodity council and a raw material/packaging commodity council—was an additional benefit of the supplier improvement process. The council comprised 12 of 3M's best vendors representing all commodities that 3M purchased and a group of 3M management from design, manufacturing, purchasing, and quality. The specific objectives of the councils were

- To provide advice on new or existing 3M policies and procedures that relate to the quality performance of 3M's suppliers.
- To exchange ideas with 3M on methods to improve quality of products and services, and to introduce to 3M new products and technologies. The two councils made the supplier improvement process more effective. They received personal recognition from 3M and developed a strong partnership with the corporation.

Committing to quality

From the quality practitioner's perspective, the supplier quality improvement process is a relentless change process toward manufacturing excellence and efficiency. Today, quality and productivity are key elements in strategic planning. At 3M, a companywide emphasis on total quality has replaced single department quality control; total quality is for the entire organization. 3M believes that improved product, service, and systems quality will deliver increased productivity. The heart of the 3M approach to quality—preventing defects—requires teamwork, both within 3M and with our suppliers.

In today's competitive business environment, 3M's commitment to quality is more important than ever; it is an opportunity to increase sales as well as reduce costs. All 3M employees compete with their counterparts in companies around the world, and quality is one of the most important ways in which we're competing.

Upper Management's Role in a Quality/Productivity Intervention

John F. Whealy
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Ledford, earlier in this book, makes some interesting observations that are corroborated at the Valspar Corporation, a Minneapolis-based paint manufacturer.

In 1974, when we first began to address seriously our need for internal change, we could have benefited greatly from Ledford's discussion on the importance of congruent change in all areas. We have come to agree with him, through the slow learning process of experience.

His statement that organizational congruence is different in each organization—that the points of resistance and the appropriate sequence of change will differ—expresses the excitement involved in organization-wide change. We would extend this to say that it differs from plant to plant, from department to department, and from person to person.

We have a good idea what a high-performance unit will look like; the challenge is to identify at what level a group performs, to structure a plan to bring it to high performance, and to keep it there. The process is fascinating in the variety of issues and needs that evolve as the changes occur.

Environmental pressures certainly help the change occur, especially among upper management. The media's focus on quality and productivity has made this an easier sell in recent years.

Our experience supports Ledford's contentions that "effective changes are pervasive" and "changes that are easy to adopt are hard to sustain and vice versa." This chapter will discuss various change experiences Valspar has had, attempt to relate top management's actions to the results of those change efforts, and suggest whether they support Ledford's observations.

Where did motivation for intervention originate? At what point was upper management involved?

In 1974, we were a marginally profitable company made up of several small acquisitions over the previous ten or fifteen years. We'd had several negative internal experiences: strikes, a successful union organization attempt, and a history of adversarial relationships with the work force.

That year, an article appeared in *The Atlantic* (Jenkins 1973) that described some innovative new plants. The General Foods Topeka pet food plant and the UniRoyal rubber hose plant in Missouri were mentioned. As a result, our chairman, personnel director, a senior plant manager, and I visited these plants.

We came away with a vivid new vision of what a manufacturing environment could be, but with no answers on how to move from our then-present state to this high-performance model.

That same year at our annual officers' meeting, our chairman, Angus Wurtele, asked us what we'd really like to accomplish. Out of this discussion came our first philosophy statement, which still describes our commitment pretty well:

Valspar's past success has depended on its above average human resources. Its future increasingly will depend on its ability

- To develop more highly skilled and motivated employees;
- To serve the customers efficiently and effectively with products of quality and value, always concerned about honest product information and product safety;
- To provide maximum satisfaction for all employees in carrying out their responsibilities and to assist them in achieving personal fulfillment in their jobs;
- To conduct our business on the highest ethical and moral standards.

These statements, in conjunction with our experiences from the General Foods and UniRoyal visits, triggered our intervention efforts in the manufacturing plants. Top management was involved in the broad sense from the beginning.

How a realistic understanding of this environment evolved

A rueful statement is that our understanding evolved slowly and painfully. We hired an experienced manager from the Topeka plant and installed him as the plant manager in a small industrial paint plant. We announced to everyone that this plant would become a role model of how a plant could become high performance through high involvement, high commitment, and a general high quality of work life.

For a lot of reasons, this didn't happen. In fact, the indicators visible to the rest of the corporation, such as financial performance, deteriorated. This reinforced the cynical view of some that while you could build this ideal plant if you hired ideal workers, the model had little application to the workers we had in our plants.

Although this was a setback, we were making progress in many ways through the plant manager's challenges to us. He talked a lot about trust; if the employees did not trust management, why should we expect management to trust the employees? We controlled most of the systems. If employees didn't think we delivered the trust we were espousing, why should they deliver their trust?

Our appreciation of congruent change began in 1975. The evaluation of our experiences told us that if we wanted change among the hourly workers, we needed to make changes at the supervisory level. Here, I give kudos to our top management and our chairman in particular. He recognized that each layer needed to change, all the way to the top. The officers became the

first class in a management training program, which we developed with the help of an outside consultant. We have kept to the approach that desired changes must be congruent; they must occur at all levels. Such integrated change, however, is a lot easier to commit to than it is to accomplish.

How Valspar built a believable model of what it could be

First, the model is still under construction and always will be so. The constant part of the model is the acceptance that Valspar will always need improvement and that improvement is always possible.

In the early stages, despite our commitment, our pilot plant was embarrassingly in trouble. We saw the need for total change and began to recognize how many systems management controlled and how many we could easily effect. These included decent lunch rooms; clean locker rooms; clean, orderly work areas; attractive landscaping; and parking areas. All of these were missing or marginal in many locations, but were certainly visible statements of management's respect for employees. So, we went to work. An amazing amount of work can be done with ingenuity, sweat, and limited funds. We also started to open up communications, holding employee meetings to share information on the progress of the change and share financial and quality details. Valspar encouraged employee-customer contacts, always with good results.

We became increasingly excited about the possibilities for improvements as we succeeded in many efforts among our plants. However, we remained skeptical about achieving levels of success similar to those in the role model plants we had visited. We knew those plants were selectively staffed, hiring one out of 20 applicants to work in new, beautiful, state-of-the-art plants.

Despite our skepticism, in the years 1975 through 1978, we significantly improved performance and largely eliminated the adversarial work relations; we had no more strikes, and the number of grievances dropped sharply.

Our change efforts through three management training programs focused on management skills and systems for performance evaluations of salaried employees.

No formal congruent training effort took place for the hourly workers. We talked a lot about "job enrichment," but primarily, we concentrated on identifying and eliminating dissatisfiers.

Growing recognition of management's role in building the environment

As the changes in hourly workers' behavior began to reflect management's behavioral changes, enlightenment set in. We gradually learned that people live up to our expectations of them. We see that frequently and illustrate this in our training to get people at all levels out of their "boxes." In a broad sense I think Valspar's management realizes that we get the performance we deserve from our people. We learned to look at our own actions first if performance isn't meeting our expectations.

How new strategies evolved out of management enlightenment

The years 1974 through 1978 saw corporate-wide significant performance improvements, which showed up on the bottom line each year.

In 1979, we introduced the broadest change effort yet. In operations, we introduced classroom training, with the help of an outside consultant, for all hourly and salaried personnel. The umbrella idea was work simplification; we taught team work, and meeting and problem-solving skills.

At the same time, employees formed the first quality circles (we called them quality teams). We quickly saw the connection between the two efforts; quality provided a focus, and the work simplification training gave the "how to."

Our training efforts since then have never strayed far from these basics:

- we want to improve quality in every area;
- the "how to's" include team work, problem-solving skills (including statistical skills); and
- constant attention to the customer.

These changes evolved out of management enlightenment, because we recognized that people were already performing up to their skill level. If we wanted even better performance, then we had to develop the skills. We made the investment to do so.

All this seems so obvious now, but in 1979 the type of training we did with hourly employees was not common. We now have an annual training plan set up for every group.

The results

We have become a highly successful company, widely viewed as one of the best performers in the paint industry. We are nearly ten times the size we were in 1974, and we have great confidence in our ability to introduce change into the newly acquired companies.

Our experience with the success of change efforts is helping us respond to the rapidly increasing demands for quality improvement.

We agree that congruent changes are powerful, and we have made a deliberate effort to improve benefits, physical environment, work structure, increased freedom as skills and commitment grow, and plenty of recognition for successful change and improvement. We now have a major effort under way to create on paper a new model plant as a vision to guide the next stages of change. Organizational change is a critical element of this design.

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Productivity Through OD: Taking on Big County With Performance-Based Pay

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It's a race against the clock and against the odds. Will the change program you are introducing to improve organizational productivity get swallowed up and spit out by a resistant organization seeking business as usual? Or will productivity improvement override the organizational barriers thrown up by a congruent system and shift the balance enough for real change to occur? Organizations are congruent systems. Things run along their usual paths, and though those paths may be unproductive and perhaps even spell disaster, "how we've always done it" is often the organization's preferred style of operation. In Ledford's proposed model of change-organizational-environmental congruence, presented earlier in this book, the ability to introduce a change that either is—or moves quickly to become—congruent with the organization and the environment is key to the success of productivity improvement efforts. Otherwise, change fails or fails to make a difference.

However, change, by definition, is incongruent with the host system. This should send a warning to practitioners of organizational development or training and development. A good program that attempts to change or influence only one subsystem, group, behavior or operation is likely to be incongruent with the organization into which it is introduced. It may fail to make a difference because it doesn't gain enough momentum to change the larger system within which it is embedded.

Congruence requires a broader view of the organization and its subsystems; change efforts must achieve a level of critical mass by affecting simultaneously (or in a timely manner) multiple subsystems. This "systems approach" to designed change is more likely to guarantee success in change efforts, or as Ledford earlier in this book stated, "To the extent that multiple congruent changes are implemented simultaneously, organizational congruence is automatically enhanced."

According to Huse (1977), although OD practitioners know that organizations' subsystems are interdependent, they often rely on "single-cause" or linear thinking. This leads them to identify incorrectly the interactive nature of the organization's problems. Linear thinking also may waste time and effort as the simple, single-solution change dies for lack of dynamic impact.

Red flagging one-system change efforts

What are the typical “one-system” programs we see failing to make a difference in OD and training and development? One example is the single-event training program in which everyone has a good time and a day off from the job, but with no resulting behavioral change. Another is the “culture change” that is really just an exercise in writing creative mission statements. A third is the introduction of management by objectives, quality circles, zero defects or any other productivity program into an unprepared, poorly equipped, and low-trust environment.

A clear example comes from a major bank’s recent dive into the culture change business. The banking industry in general has been attempting to change from promoting a “good old boys are bankers” image to a strategy that emphasizes a diversified product line and the redirection of employees toward selling and customer service. This bank was no different.

The change process began with a customer service training program, which was followed by the president’s decision to define the bank’s mission. The president wrote a “wish-list” mission statement and had the OD department take it around to see what the senior staff thought. Even though most of the senior managers responded with incredulity at the gap between fantasy and reality, the president was not to be deterred. The mission statement was published and distributed throughout the organization. The result was a marked decrease in respect for senior management and no change in behavior or commitment to the organization.

A similar incident occurred in a major insurance company, which conducted an employee attitude survey after a year of living with the CEO’s new business philosophy. The results indicated that less than 30 percent of the employees believed that senior managers actually lived by the values espoused in the business philosophy: respecting the self-worth of individuals, sharing ideas with one another candidly, and supporting individual achievement.

Systems thinking: ensuring critical mass in change efforts

While a number of models for systems thinking are available (Katz & Kahn 1978; Kotter 1978; Ackoff, unpublished), a simple model that lends itself to analyzing change efforts is the McKinsey 7-S Framework (Peters & Waterman 1982). The seven systems identified are: structure, strategy, systems, shared values, skills, style, and staff. As Ledford argues, the development of a “critical mass” is needed to overcome the organizational and environmental congruence barriers to change. To begin this process, the OD practitioner can analyze the organization using the 7-S framework, and determine multiple lines of intervention to support the behavioral changes. This creates the necessary critical mass. A change program currently in progress in one of the nation’s largest counties may serve as an example.

Mix and match: county government is a multicultural thing

Understanding the multiple systems and diversity of stakeholders that affect a governing organization is not easy. New arrivals hired from the private sector find the differences between their former life in business and their present life in the public eye to be like night and day; many stay in the dark a long time trying to figure out how it all works! Here are just a few of the unique situations affecting systems in the public sector:

- Elected officials as bosses—Instead of one CEO, there may be as many as five. Each has different political views, different constituencies to which they must answer, and a nagging lack of funds to meet the needs of their stakeholders.
- Elected officials as department heads—In business and industry, employees pledge their loyalty to the boss. The boss, whether CEO or first-line supervisor, has built-in legitimate power over the subordinate—the power to punish or reward.

Imagine an organization where several of those in charge of major departments are not accountable to the boss, but instead answer directly to the shareholders. These shareholders express their views and desires at regular but long intervals: every four years. This illustrates a major difference between county government and business.

Another frequent source of confusion for the newcomer is that many of those departments receive all or nearly all of their operating funds from outside sources, such as the state or federal government. Their loyalty is further divided.

- Special interest groups—County governments in large urban areas lack commonality of interests, since definable community exists. Instead, hundreds of special interest groups, many with single-issue interests, invade the management system with persistent demands for attention.
- Civil service—The system that protects people's jobs also limits their opportunities. Whenever we propose a program that might single out a few outstanding people for focused development, we hear, "But what about civil service!" Though the concern for protecting individual rights is often justified, attempting to address unique needs is difficult in an environment with fairly rigid concern about fairness to all.
- Reward system—The reward system, though intended to be fair, has been diluted by a complex system of classifying positions designed to circumvent its limitations. In one county, the reward system had five steps. Upon receiving a satisfactory rating, an employee would automatically move up to the next step until reaching the fifth. A higher salary was possible only if the job were completely reclassified—with over 2,000 classifications from which to work!
- Goals and objectives—Bottom line, ROE, ROI, quantifiable results—these are difficult terms to define in a government environment. Governments provide services. Thus, in many departments, setting quantifiable goals that are truly meaningful for public sector employees is very difficult. While

definitions of good service are sometimes possible, the final definition is in the eye of the beholder (or beholders as in the case of our diversified culture).

Into an environment such as this, we introduced a performance-based pay program.

Improving productivity through rewards: performance-based pay

Initially, to improve the county's organizational performance, we implemented a new performance-based pay plan. The plan, which was designed for senior managers and senior staff, provided significantly fewer salary ranges and the determination of compensation based on performance against agreed-upon objectives. As with most similar plans, it allowed management to reward success and withhold rewards for failure.

Although the plan was technically a well-designed compensation system, it was introduced as a single-system change into a culture that lacked open communication between managers and subordinates. Managers also lacked appraisal skills, such as the ability to give constructive feedback. In addition, the organization's complexity, its unclear or poorly communicated strategies, and diverse values, often hindered employees in striving for achievement and success.

The assumptions behind performance-based pay are that new and enhanced compensation opportunities can increase managerial motivation and performance. This eliminated the predictability of the step reward system (especially since most senior managers had risen to the top step and could not expect significant increases in the future). Unfortunately, increased motivation has not occurred in other public sector agencies where pay for performance had been introduced.

Performance-based pay in the public eye

Nigro (1981), in a 1979 Federal government study, found that managers lacked trust in the pay system's fairness and gave low ratings to the government's ability to link pay to performance. One-third of the respondents to a study by Ingraham and Colby (1982) felt that the financial incentives diminished their motivation; one-half felt that the reforms made no difference. In a study by Pearce and Perry (1983), government managers said that though given a clearer understanding of the criteria by which they were evaluated, those criteria were not suited to promoting improved performance. This study concluded that the objectives-based performance appraisal system and merit pay reduced expectations that a strong effort would lead to highly rated performance, overall motivation remained the same, and managers felt that merit pay did not encourage them to perform well.

Even given this perception of public-sector programs that link pay to performance, there are enough potential benefits to encourage further attempts and experimentation. The county's performance-based pay plan is still in its early stages, and it is difficult to evaluate its potential for success without further interventions. However, reevaluating this organizational change

program in light of Ledford's model of congruence might indicate potential problems and needed OD interventions. The change would be more successful if the organization were analyzed using the 7-S framework.

The goal of that analysis would be to introduce simultaneously a program of changes in diverse systems so that multiple lines of support for performance-based pay, and the desired behavioral changes it should induce, would develop. Thus the organization would arrive at the necessary critical mass, shifting to become congruent with the changes, rather than the change disappearing as a result of organizational incongruence.

In doing this, according to Golembiewski (1987), OD theory leads us to pay particular attention to cultural preparedness (shared values) and integrated effort (structure). He also strongly supports the need for a compatible set of organizational subsystems.

Systems analysis applied

Continuing to use the reward system as the lead system for the change effort, but analyzing the remaining systems for potential support, might result in some of the following change efforts:

- shared values—The significance of culture receives a great deal of attention (Peters and Waterman 1982; Deal and Kennedy 1982). Over the past few years, organizations have tried to develop cultures that support new reward systems. A culture appropriate for the success of the performance-based pay program would require that knowledge about the system be extensive, that there be a high level of acceptance, that the system aims at meeting employee needs, and that employees help administer the system, giving their input into the performance-appraisal process.
- style—A successful goal-setting system, such as performance-based pay, requires management-employee cooperation in establishing goals and solving problems. Development programs that introduce managers to team-building and constructive feedback would support an effort to change management style.
- strategy—A process of strategic planning, including the clarification of mission and direction, would promote greater consistency in goals and increased understanding between team members of what work they need to do to be successful.
- skills—All employees in performance-based pay need to know how to write a specific, measurable objective they can track. Training for performance-based pay should focus on this skill. Practitioners must consider thoughtfully how to deliver this training to the organization's senior leaders.
- structure—The effects of compensation plans are often diluted by their structural context—the bureaucratic model. These structures make it difficult to define *merit* and determine an individual's contribution to the organization. In fact, instead of contributing to higher performance, bureaucratic structures often inhibit integrative performance by leading to zero-sum competition among department members. A strong bias toward

stability as opposed to change also exists. This poses numerous barriers to success.

An appropriate OD intervention would be the analysis of the organization's structure with recommendations for revisions that support the new reward system.

Other places to look for potential change intervention programs include:

- information systems—to encourage upward and downward communication.
- job design—to increase employee control over outcomes.
- career system—to clarify tracks for employee development, with career counseling programs and individual counseling available.
- personnel policies—to emphasize employment stability and focus on performance rather than hierarchy.
- status—to show that importance is acquired through performance, not rank, and based on flow of work rather than need to please superiors.

The role of the OD practitioner in achieving change congruence

The role of the OD or training and development practitioner is to assist management in taking the "hard way out." The easy way—using linear, single cause/single solution thinking—is not likely to lead to a change effort with meaningful results. The critical mass needed to affect successfully the congruent organization cannot be achieved without multiple change efforts and systems thinking about organizations.

We will need to apply a systems view of the organization in the earliest data-gathering and analysis phases of our consulting process. Once we have analyzed the larger system and its subsystems for needed change, we can recommend supporting change programs, arranged for implementation over time, and multiply the potential for lasting organizational change.

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Glossary

Ability Rate Progression. A system of compensation in which individuals are compensated based on the number of jobs they are proficient in performing rather than simply on the job they are performing. (Landen)

Actualization. A psychological point of view that holds that human development is a never-ending process and that self-actualization is a compelling motivational force that is rarely realized. (Landen)

Adhocracy. A fluid and dynamic form of organization in which individuals or teams come together to accomplish particular purposes within the framework of shared values and in the pursuit of common goals and objectives. (Landen)

Autocratic. A philosophy or style of managing that places unlimited authority in a limited number of positions and/or individuals. (Landen)

Bureaucracy. An organizational form designed around small administrative units generally characterized by limited communication and coordination, centralized decision making, and a preoccupation with procedures over principles and appearance over substance. (Landen)

Common Cause. Deming's term for a cause of a quality problem that can be attributed to the process or system itself, such as poor design, faulty materials, poor training, or poor working conditions. (Schultz & Parker)

Communication Systems. The formal and informal means and methods by which data, goals, plans, decisions, and achievements are transmitted within organizations. (Landen)

Communitarianism. A form of governance in which the group holds preeminent importance. (Landen)

Competence. The acquisition of knowledge, development of attitudes, and building of skills essential to the development of the organization and its members. (Landen)

Consultative. A philosophy or style of managing in which those in authority seek ideas and advice from others with the understanding that those in authority reserve the right to use or ignore the advice of others. (Landen)

Control Chart. A chart used to analyze a process. It is a run chart with statistically determined upper and lower limits drawn on either side of the process average. Every process has variation, but continual process improvement can reduce deviation from the average. Variation can result from either special causes or common causes. (Schultz & Parker)

Cost of Quality. The total cost to an organization of producing poor quality output, including the costs of production, rework, inspection, and potential loss of business. (Schultz & Parker)

Culture. The learned, unwritten rules and shared understandings of how we do business and how we are to behave. (Clay)

Culture. The unique qualities of an organization that define the image and effectiveness of the enterprise. (Landen)

Culture. A system of shared values (what is important) and beliefs (how things work) that interacts with a company's people, organizational structures, and control systems to produce behavioral norms (how we do things around here). (Uttal, B. (1983). *Fortune*, Oct. 17, 66.)

Decision Making Systems. The means by which individuals and groups determine what and how the organization achieves its mission, goals, and objectives. (Landen)

Defect. An undesirable output of a process. (Schultz & Parker)

Democratic. A philosophy or style of governing in which everyone has an equal opportunity to participate actively in shaping the environment in which he or she works; the means by which work is accomplished; and the process by which goals are established, plans are made and the responsibility for allocating resources, monitoring, and guiding performance take place. (Landen)

DSC. Division Steering Committee. Within the IQMP model, the DSC represents management and is responsible for developing and overseeing the process and carrying the message of Deming's philosophy to all employees. (Schultz & Parker)

Empowerment. The increased opportunity for all individuals to exercise their judgment and decision-making abilities in the application of resources and in the process for shaping human and organization competencies. (Landen)

Equity Sharing. A means of recognizing the accomplishments of the organization and the contributions of its members, and of maintaining a balance between the rewards that are shared between the enterprise and its people. (Landen)

Gainsharing. A system of compensation in which bonuses are paid to all employees according to an established formula based on improvements in the organization's overall operating results. (Landen)

Goals. The aims or results toward which the resources of the organization are directed and guided. (Landen)

Group Incentives. A system of compensation in which bonuses are paid to teams of individuals according to an established formula based on improvements in the team's overall operating results. (Landen)

Improshare. From *improved productivity sharing* a specific nonfinancial-based formula designed by an industrial engineer, Mitchell Fein. Improshare plans gauge improvement by measuring the time taken to produce a given product or unit of work. Improvements over a preestablished base productivity factor (BFP) are gains to be shared evenly between employees and the company. (Fuehrer)

Individualism. The belief that the individual holds a preeminent position in the social structure. (Landen)

Integration. Congruency of goals (individual, organizational, divisional, etc.) and consistency of action between organizational units. (Clay)

Intergroup Interventions. Interventions by a process consultant aimed at resolving conflict or improving effectiveness between two or more separate but interdependent groups. (Schultz & Parker)

IQMP. Improving Quality Management Processes. A process model for change that management owns and implements with continuing help from an external consultant. (Schultz & Parker)

Ishikawa Diagram. A diagnostic tool invented by noted Japanese quality expert, Dr. Kaoru Ishikawa, it is used in brainstorming sessions to look for factors (causes) that may influence a particular situation (the effect). Causes are often grouped in four main categories: materials, methods, manpower, and machines. More categories can be created. Also known as a "cause-and-effect" diagram or as the "fishbone" diagram because of its shape. (Schultz & Parker)

Iterative Process. A process in which repetition of a cycle of operations produces results that approximate more and more closely the desired result. (*Webster's New Collegiate Dictionary*, 1981)

Job Enlargement. A simple method of job redesign that involves increasing the variety in types of work performed in a given job. (Ledford)

Job Enrichment. A method of job design that considers increases in the variety of skills required for a job, the degree to which the work involves completed products, the significance of the job, the autonomy permitted on the job, and feedback provided by doing the work in order to produce greater work motivation, job satisfaction, and job performance. (Ledford)

Job Enrichment or Redesign. Design of work that is intended to increase worker performance and job satisfaction by increasing skill variety, autonomy, task significance and identity, and performance feedback. (Ledford)

Laboratory Training. An experiential method of training about small-group behavior through membership in a facilitated but leaderless group. One type of laboratory training is the T-group or sensitivity training. (Ledford)

Linkages. Both the formal and informal processes of bringing together people, systems, and programs so they can share information and resources. (Clay)

Matrix. An organizational form that represents a blend of functional activities, or vertical responsibilities, with cross-functional activities, or horizontal responsibilities. (Landen)

Measurement. The basis by which an organization directs, guides, and evaluates its activities. (Landen)

Mission. The primary reason for the organization's existence and the foundation for establishing all goals, plans, and performance standards. (Landen)

Network. An organizational form in which teams of people integrate activities in support of team objectives and in pursuit of goals that transcend those of any single team. (Landen)

Networking. The process of getting to know colleagues and of finding other resources to meet your needs. (Clay)

Normative. In organization development, normative theorists are those who advocate "one best way" to change or manage an organization. Contingency theorists counter that change and management methods must depend on a variety of factors. (Burke, W.W. 1982. *Organization development: Principles and practices*. Boston: Little, Brown. p. 185.)

Open System. As sociotechnical systems, organizations are open to influences within the organization and within the larger society. (Landen)

Organization Development. "... a process by which behavioral science knowledge and practices are used to help organizations achieve greater effectiveness, including improved quality of work life and increased productivity. Organization development differs from other planned change efforts ... because the focus is upon human resources and their motivation, utilization, and integration within the organization." (Huse, E.F., and Cummings, T.G. 1985. *Organization development and change*, 3d ed. St. Paul, MN: West Publishing. p. 1.)

Ownership. An economic system in which the employees own the company (through an employee stock ownership plan) and are represented on its board of directors. Employees either manage the company or hire professional managers to carry out the business of the company under the direction of the board. (Landen)

Participative 1: A philosophy or style of managing in which everyone has the opportunity to contribute ideas, has access to information, makes decisions, and implements plans. (Landen)

Participative 2: A process of governance in which all members have the opportunity to engage themselves personally in the life of an organization. (Landen)

Participative Management. A style of management that stresses two-way communication, cooperative and trusting interpersonal relationships; frequent decision making by consensus; mutually established goals; and widespread, decentralized control. (Burke, 1982, p. 37.)

Pay for Knowledge. A formalized method of compensating employees that is based on their knowledge and abilities to perform jobs. The more capable employees are at performing a wide range of jobs, the more valuable they are to the organization, and thus, the greater their pay. Higher pay levels are achieved only after demonstrating knowledge (competence) in certification testing. (Fuehrer)

Philosophy. A set of beliefs and values that establish the bases on which an organization is governed and defines individual conduct and interpersonal relationships. (Landen)

Policies/Practices. Written or unwritten positions or directions that set forth organizational commitments and specify the framework in which decisions will be made, performance will be judged, and behavior will be guided. (Landen)

Productivity. Ratio of organizational outputs to inputs. (Ledford)

Productivity Gainsharing. The integration of a set of management practices with compensation and involvement systems. It is designed to reward employees for improving the productivity of their group/organization through better use of important resources, such as labor, capital, materials, and energy. Gains resulting from altered practices and improved performance are shared between the company and the employees according to a predetermined formula. (Fuehrer)

Professional Bureaucracies. An organization composed of groups of professionals joined together to provide services for multiple constituencies or clients. (Clay)

Quality. Degree to which an organizational output is free of defects. (Ledford)

Quality Circle. 1: A group of 7 to 10 workers who meet regularly to identify and solve problems, implement their solutions, and monitor their effectiveness when appropriate. (Landen)

Quality Circles. 2: Structured type of employee participation groups in which groups of volunteers from a particular work area meet regularly to identify and suggest improvements to work-related problems. The goals of QCs are improved quality and productivity. There are direct rewards for circle activity, group problem-solving training is provided, and the group's only power is to suggest changes to management. (Ledford)

Quality Circles. 3: Teams. A group of employees working as a team to improve performance in a particular area. Usually focused on eliminating problems thus improving quality of product or services. (Whealy)

Quality of Work Life. Both a process and a goal. The process of creating opportunities and conditions in which people can work together in a spirit of cooperation to establish and accomplish common goals and objectives. A goal of creating organizations in which trust, respect, dignity, and basic democratic values are standards of personal conduct. (Landen)

Quality Transformation Process. An integrated flow chart that provides a generic model of an initial change implementation process. Developed by Process Management Institute, Inc. (Schultz & Parker)

Real Time. In connection with statistical process control, real-time sampling refers to data collected and analyzed as it is produced, with the aim of improving the system. Real-time monitoring of the process emphasizes prevention rather than inspection. (Schultz & Parker)

Representative. A form of governing in which some are chosen to represent the views of others. (Landen)

Resources. The availability and application of time, budgets, materials, and people essential to furthering human and organization development. (Landen)

Reward System. A human resource system for defining job duties and responsibilities, establishing performance standards, and allocating financial compensation based on the worth of the job and the performance of individuals. (Landen)

Roles and Responsibilities. The means by which work is carried out. (Landen)

Rucker Plan. A specific, financial-based gainsharing formula designed by Allan Rucker. Rucker plans use a ratio based on the cost of inputs (raw materials and services) compared to selling price. Improvements in this ratio mean greater value added, and thus gains or improvements. (Fuehrer)

Run Chart. A chart on which a series of individual measurements are plotted over time for the purpose of identifying trends or patterns. (Schultz & Parker)

Satisfaction Audits. Surveys or interviews of clients that consultants perform to review joint efforts to date and to aid the development of future efforts. (Schultz & Parker)

Scanlon Plan. A specific, financial-based gainsharing formula designed by Joe Scanlon. Scanlon plans usually use the sales value of production compared to labor costs as a ratio from which to establish improvements. They frequently include involvement committees or teams, and a suggestion system as design components. (Fuehrer)

Shewhart Cycle. A cyclical model used to guide the process of continual improvement consisting of four steps: plan, do, check, and act. Also referred to as the Deming Cycle and the PDCA Cycle. (Schultz & Parker)

Skills. The requisite competencies required to accomplish effectively job duties, tasks, and responsibilities. (Landen)

Sociotechnical Systems. All organizations consist of a technical system—the processes through which work is accomplished—and a social system—the interpersonal activities that define relationships and create cultures. In combination, these two subsystems interact to form a large (sociotechnical) system. (Landen)

Special Cause. Deming's term for the cause of a quality problem that can be attributed to a specific machine, specific batch of materials, or specific individuals. (Schultz & Parker)

SPC. Statistical Process Control. The application of statistical methods (including control charts) to a work process in order to bring it under control through the elimination of special causes. Once under statistical control, the process can be monitored and improved. (Schultz & Parker)

SPT. Special Project Teams. Ad hoc groups with voluntary membership whose purpose is to apply the PDCA cycle in order to remove barriers that prevent the organization from implementing a Deming principle. (Schultz & Parker)

Superordinate Goals. The significant meanings and transcending purposes that bind people together. (Landen)

Survey Feedback. 1: Systematic reporting back the results of a survey in summary form to all people in the organization who participated in the survey. The feedback is systematic because it occurs in phases, starting with the top team of the organization and flowing downward according to formal hierarchy and functional units or teams. (Burke, 1982, p. 19.)

Survey Feedback. 2: Use of employee attitude survey results, not simply as an employee opinion poll, but rather as part of a larger problem-solving process. Survey data are used to encourage, structure, and measure the effectiveness of employee participation. (Ledford)

Staff. The members of the organization. (Landen)

Strategy. An organized approach to accomplishing long-term business goals; a comprehensive plan that defines purpose, direction, and process. (Landen)

Structure. The instrumentalities or mechanics through which an organization implements its philosophy and pursues its mission, vision, and goals. Achieving the mission and accomplishing goals requires organization and form.

Within this form, policy is practiced, work is performed and goals are achieved. (Landen)

Style. The standards and conduct of individuals and the mores, traditions, and cultures of the organization. (Landen)

Symbols/Norms. Those observable objects or standards of treatment that reflect an organization's philosophy and culture and that may serve as the bases for differentiating between groups or classes of people. (Landen)

Symmetry. Balance, blend, or integration of the claims of critical stakeholders, i.e., consumers, shareholders, suppliers, members, community, etc. (Landen)

Systems. The guidelines and procedures that provide the bases for carrying out policy, administering programs, and accomplishing objectives. (Landen)

Team Building. An activity by which members of a work group (1) begin to understand more thoroughly the nature of group dynamics and effective teamwork, particularly the interrelationship of process and content, and (2) learn to apply certain principles and skills to group process toward greater team effectiveness. (Burke, 1982, p. 282.)

Teamwork. An organizational form in which jobs are grouped together to form a meaningful constellation of responsibilities and in which people work together in a cooperative spirit to pursue common objectives. (Landen)

Transition. The movement or passage from one stage of development to another. (Landen)

Union-Management Quality of Work Life (QWL) Committees. Joint union-management committees usually existing at multiple organizational levels alongside the established union and management relationships and collective bargaining committees. QWL committees usually are prohibited from directly addressing contractual issues such as pay, and are charged with developing changes that improve both organizational performance and employee quality of work life. (Ledford)

Wage Rates. A system of compensation in which individual compensation is based solely on the worth of the job. (Landen)

Work Simplification. An industrial engineering technique that can be used to improve a particular job. (Whealy)

Values. The ideals, customs, convictions, and institutions that bind people together. (Landen)

Vision. A sense of the future; a statement of what ought to be; a transcending goal that inspires and challenges the best that exists within the organization and its members. (Landen)

Visioning. An exercise that encourages developing a vivid mental image of a possible and desirable future state with the aim of defining a clearer sense of purpose and direction. (Schultz & Parker)

Zero Defects. A symbolic way of expressing the goal of defect prevention; a standard of quality performance; "doing it right the first time." (Landen)

About the Authors

Maria C. Clay is an experienced OD consultant who has been director of training and organization development at the North Carolina Memorial Hospital in Chapel Hill since 1979. She has been an active member of ASTD for 8 years and has held major offices in the Triangle Chapter. She is currently chair of ASTD's National Professional Development Workshop Task Force and has presented at national, regional, and local ASTD conferences. Born and raised in Washington, DC, Maria grew up in a bilingual family and retains her fluency in Spanish. She received an A.B. in political science, an M.Ed. in counseling at East Carolina University, and is currently working on a Ph.D. in adult education with emphasis on organizational development at the University of North Carolina, Chapel Hill. She is an adjunct professor in the graduate school at UNC, where she teaches in the area of organizational change. Interested in research and writing, Ms. Clay co-authored the chapter on needs assessment in the 1985 *AMA Handbook of Human Resource Development*, has published in the *Training & Development Journal*, and is currently researching in one of her favorite areas, internal consulting. Specifically, she is investigating the skills and ego of an internal consultant.

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Louis E. Schultz is president and founder of Process Management Institute, Inc., Bloomington, Minnesota. He has held top management positions in computer industry organizations. In his responsibility for directing corporate productivity programs, he developed and initiated implementation of quality improvement programs based on involvement teams and statistical process control methods. Active as an associate and lecturer in various professional associations, he has been cited in regional news for his contributions to the development of quality circles and statistical control. He serves on the board of the Asian Pacific Congress on Quality Control and is also a member of the board of the American Society for Performance Improvement. He holds a B.S.E.E. from the University of Nebraska and an MBA from Pepperdine University.

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