ORGANIZATIONAL DEVELOPMENT INTERVENTIONS FOR ENHANCING CREATIVITY IN THE WORKPLACE

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ABSTRACT

In an era of global, rapidly accelerating change, many large organizations find themselves in a crisis of adaptability and commitment. This is because they developed during an earlier more stable, predictable era which demanded bureaucratic efficiency. This paper describes and evaluates the traditional Organizational Development (OD) approach to this problem, then presents a new approach based on organizational creativity. The traditional OD approach is characterized as interventionist and stepwise and achieving little organizational self-renewal in practice. This lack of success is attributed to a single intervention "tool" approach and no emphasis on thinking skills. The new approach regards adaptability as a continuous process of creativity. Organizational creativity is defined as a deliberate change-making process of problem finding, problem solving and solution implementation. Organizations can learn to mainstream adaptability and creativity by doing two things. First, employees must master new thinking skills to reframe their jobs to become creative problem solvers as opposed to "job doers", thus increasing commitment. Second, the organization must provide a framework for directing these new skills in support of its mission. Research is reviewed supporting the new approach, and what works and why is identified.

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The Problem: A crisis in commitment and a crisis in adaptability

In his classic systems view of organizational change and development, Beer (1980) suggests that the twentieth century has seen "bureaucratic" organizations emerge as the primary means of bringing together and utilizing labor, capital, and technology to achieve organizational goals. The most prominent of these bureaucratic organizations is the corporation. Born out of the Industrial Revolution, the corporation is hierarchical in nature, has centralized decision-making, achieves co-ordination through tight rules and controls, divides work by functional specialization, and emphasizes standardization and control in order to achieve reliability, rationality, and efficiency. Under the stable markets and technology of that period, the corporation had little need to adapt. What was needed was an organization that reliably performed a relatively simple and routine task -- a bureaucratic organization that emphasized standardization and control. Given today's ever-accelerating changes in markets, technology, science, information, and values, this bureaucratic organization is now under severe stress, as predicted a quarter-century ago by Toffler (1970).

The Crisis In Commitment

Under more rapid economic development, employees' primary concerns have shifted from job security and survival and toward freedom, self-esteem, personal growth, and self-realization (Herzberg, 1966; Maslow, 1954). The primary mechanism of bureaucratic organizations for attracting, motivating, and holding workers -- the "economic contract" -- has eroded. Specialized

jobs that fail to challenge employees, poor communication of goals, and more centralized control systems are eroding the commitment of industrial workers to their jobs and to the organization. More costly labor settlements are required just to obtain minimum levels of commitment. Beyond the production floor, the problem of reduced commitment -- and resultant turnover or unionization -- is also being seen among white-collar clerical employees, professional employees, even managers.

The Crisis In Adaptability

It is not surprising that an organization whose main virtues were predictability and reliability should find it difficult to adapt to an increasingly dynamic environment. Its hierarchical structure and centralized decision-making process can hinder this organization from processing the huge volumes of complex information that inundate it, and can impair its ability to respond. Division of labor and functional specialization make it difficult to integrate functional departments and co-ordinate tasks, particularly when a task must be completed quickly. Rules, procedures, and other centralized controls prevent individuals from responding to change or handling unique problems and opportunities without assuming great personal risks. When employees fail to respond, the organization cannot change appropriately.

What is Adaptability?

Mott (1972) showed that effective organizations have two major but very different characteristics: efficiency and adaptability. *Efficiency* means optimizing, stabilizing, and perfecting current methods or routines in order to attain the highest quantity and quality for the lowest possible cost.

High efficiency means mastery of routine, or a standard, prescribed method by which the organizational unit carries out its main tasks. *Adaptability* means continually and intentionally changing routines and finding new, continuous, and better ways to do business. It means changing methods in order to attain new levels of quantity, quality, and cost; adaptability yields both new methods and new products. High adaptability means a high rate of positive change of routine.

Formerly, bureaucratic organizations could be effective by concentrating solely on efficiency. Many organizations that have found comfort in predictable technology, markets, and other environmental factors are highly efficient but not highly adaptable. This provides a limited level of effectiveness sufficient for a predictable environment (Figure 1). The most effective organizations combine high efficiency *and* high adaptability, for an expanded level of effectiveness required for rapidly changing environments (Figure 2). The least effective organizations are poor in both attributes. Mediocre organizations compromise unnecessarily, trading off efficiency against adaptability in a zero-sum fashion.

The Traditional Organizational Development Approach to Improving Commitment and Adaptability

As a subset of the field of industrial and organizational (I/O) psychology, the field of organizational development (OD) offers a variety of interventions that an organization can harness to encourage dissatisfaction with the status quo and to develop an effective, deliberate change management process. Beer (1980) defined organizational development as a "system-wide process of data collection, diagnosis, action planning, intervention, and evaluation aimed at: (1) enhancing congruence between organizational structure, process, strategy, people, and culture; (2) developing

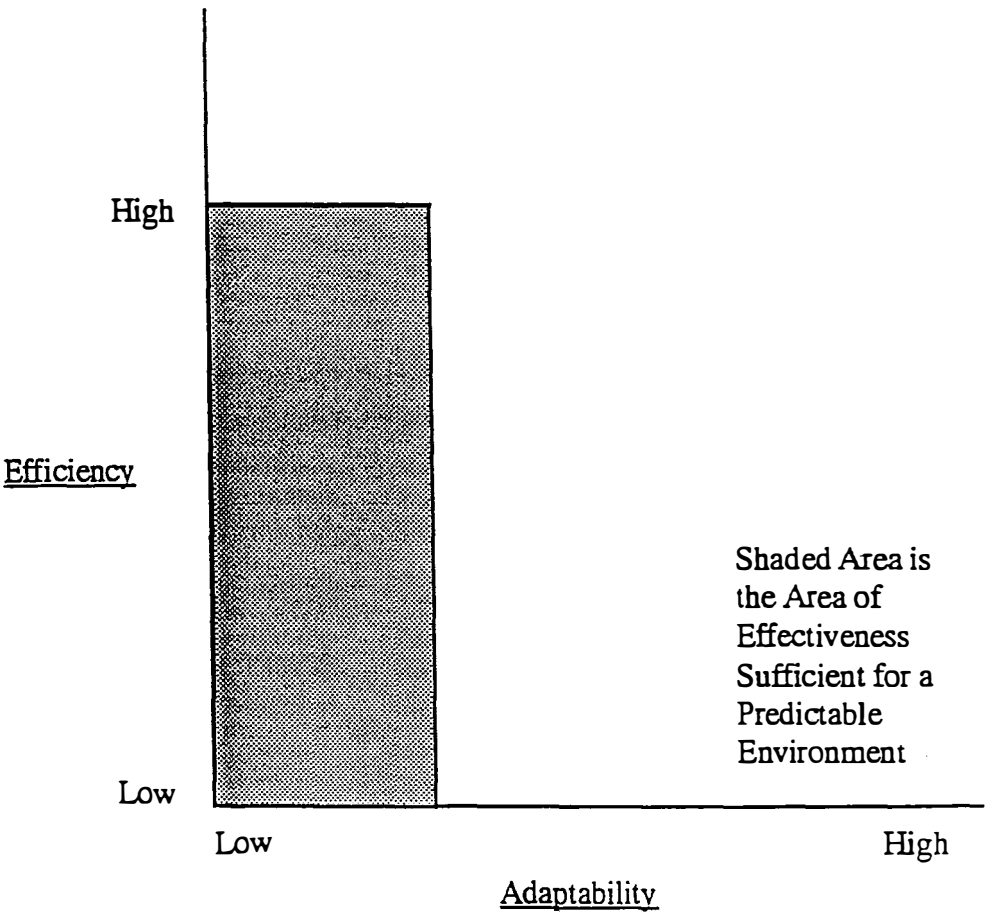

Figure 1: Limited Amount of Effectiveness Sufficient for a Predictable Environment

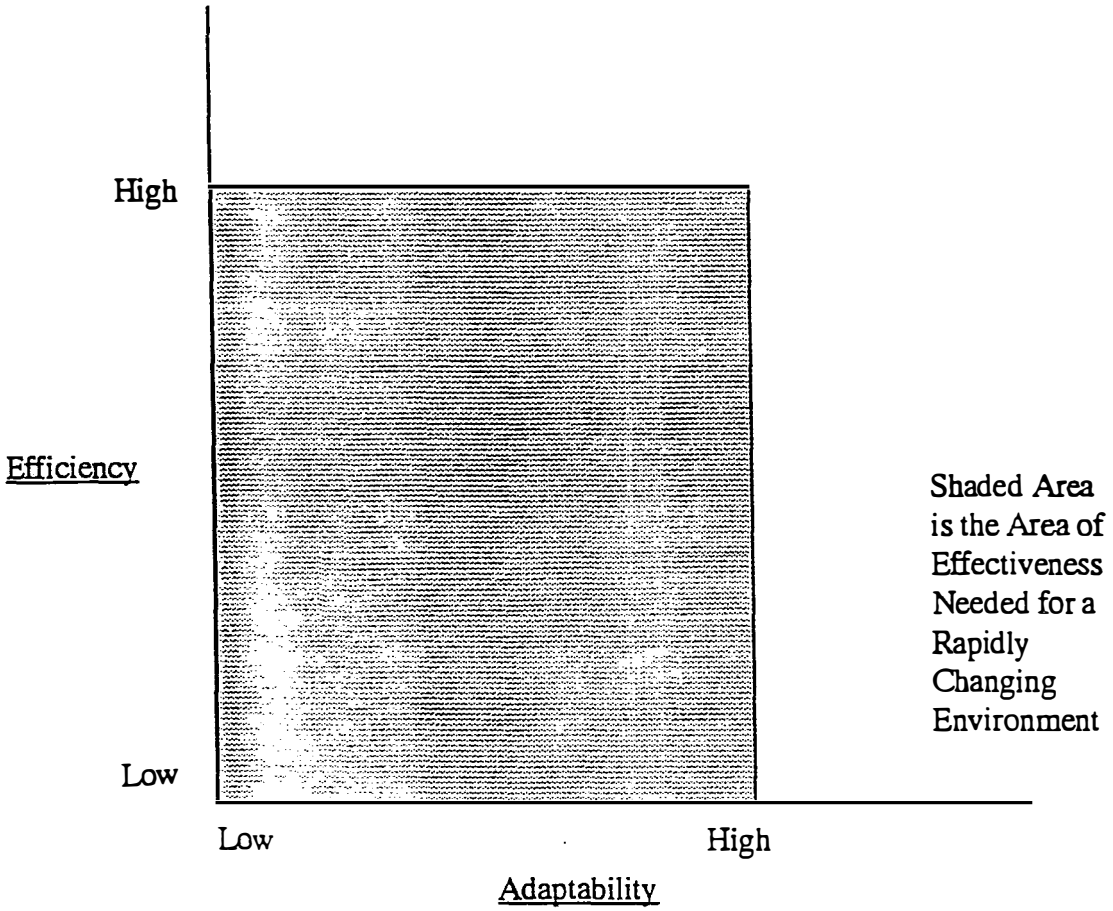

Figure 2: Expanded Amount of Effectiveness Required for a Rapidly Changing Environment

new and creative organizational solutions; and (3) developing the organization's self-renewing capacity. It occurs through collaboration of organization members working with a change agent using behavioral science theory, research, and technology." The ultimate goal of OD is to help organizations become healthier, more adaptive systems.

The basic elements of Beer's organizational renewal concept are the following:

1. *Organizational development seeks to create self-directed change to which people are committed.* The organization obtains commitment for change by obtaining the collaboration of people in the change process.

2. *Organizational development is a system-wide effort.* Organizations are complex systems with interdependent subunits, levels of management and components (process, people, structures, etc.): changing one means change in the others.

3. *Organizational development typically places equal emphasis on solving immediate problems and on long-term development of an adaptive organization.* The latter objective is met by developing an organization in which individuals are encouraged and have competence to confront problems.

4. *Organizational development places more emphasis than other approaches on a collaborative process of data collection, diagnosis and action for arriving at problem solutions.* The collaborative approach increases commitment to the planned change and enables managers to learn to use the process.

5. *Organizational development often leads to new organizational arrangements and relationships that break with traditional bureaucratic patterns.*

6. *In organizational development efforts, the change agent brings two types of competencies to the organization: knowledge* about organizational design, management practice, and interpersonal dynamics; and *skills* in working with individuals and groups.

Lewin introduced a simple, three-phase paradigm for the change process called "unfreeze-change-refreeze" (Schein, 1961). In the first phase, pressures stimulate a desire for new behaviors and attitudes, which is called "unfreeze," or a willingness to let go of the old behaviors and attitudes; second, there is the actual learning and acceptance of the new behaviors and attitudes; and finally, there is the solidification of the new behaviors and attitudes, something to make them permanent. Beer provides a useful taxonomy of traditional organizational development interventions which have been used to aid the change process. Included are diagnostic methods, process interventions, structural innovations and interventions, and individual interventions (Table 1).

Diagnostic Interventions are intended mostly to gather data about the system or its parts and to create a setting for feedback and diagnosis. ***Process Interventions*** are activities intended to affect organizational behavior and process. Through these interventions, organizational members are helped to examine, become dissatisfied with, and change their behaviors.

Table 1

Beer's Classification of Interventions

DIAGNOSTIC INTERVENTIONS	PROCESS INTERVENTIONS
■ Survey Feedback	■ Processing Meetings
■ Confrontation Meeting	■ Group Development
■ Sensing Meetings	- Goal Model
■ Manager's Diagnostic Meeting	- Role Model
■ Family Group Diagnostic Meeting	- Interpersonal Model
■ Organization Mirror	■ Intergroup Meetings
■ Diagnostic Task Force	■ Interpersonal Peacemaking
STRUCTURAL INNOVATIONS AND INTERVENTIONS	**INDIVIDUAL INTERVENTIONS**
■ Organization Design	■ Counselling and Coaching
■ Job Design	■ Training and Development
■ Reward Systems	■ Replacement and Termination
■ Performance Management Systems	■ Recruitment and Selection
■ Control and Accounting Systems	■ Career Development

Structural Innovations and Interventions are intended to affect the organization's structures. Structural innovations are new designs that more organizations are adopting in their attempt to cope with changes in people and environment. Structural interventions are methods for diagnosing existing structures and implementing changes. ***Individual Interventions*** are intended to change people in an organization. These are strategies and methods for selecting, training, and developing individuals in order to create a better fit between people and other components of the organizational system.

Here is how each of these interventions is supposed to work. By nature, *diagnostic interventions* unfreeze organizational members, i.e., prepare them for change by providing data and identifying problems. *Process interventions* and *individual interventions* provide new attitudes, behaviors, skills, and processes to groups and individuals, and cause both unfreezing and changing. *Structural interventions* are often designed to refreeze changes, ensuring that new, appropriate behaviors solidify. Structural interventions include changing appraisal and reward systems, jobs (e.g. job enrichment), and organizational designs (e.g. moving from functional design to matrix management or adhocracy) that support the new behaviors learned.

Evaluating the Traditional OD Approach

Considerable evidence indicates that many of these intervention methods improve organizations in the short run. But according to evaluation of OD interventions several years after their implementation, many seemingly successful and permanent changes have regressed or disappeared (Beer, 1979; Hinrichs, 1978; Walton, 1978). In some plants, for example, innovations in job design, and the principles that had guided these efforts, have vanished. Other organizations that

had adopted management by objectives (M.B.O.) have dropped this approach. Even as many companies adopt OD, some pioneering companies have apparently de-emphasized or halted their efforts. Other organizations have encountered problems due to rapid expansion of OD, spurred by top management and/or a corporate staff group. These interventions appeared to serve an immediate need, but they failed to stimulate a continuous process of organizational renewal. The experiences suggest that OD involves more than changing a single organizational unit or introducing a single, successful intervention. A large, multi-unit organization must understand several strategic considerations in starting, orchestrating, and sustaining an organizational development effort, including the key issue of integrating multiple interventions.

In order to ensure that an organizational development program has a lasting effect, the organization must carefully select and integrate at least two interventions. This integration is designed to synchronize the various components of the organizational system. For example, if management desires a particular kind of employee behavior, then the other components of the organizational system -- reward system, training in the new behaviors, infrastructures that enable employees to use the new behaviors -- must be congruent with the behavior component. From rats to monkeys to human beings, most organisms seek to learn which activities will be rewarded and then set out to do -- or at least pretend to do -- those activities, often to the virtual exclusion of all other activities. Yet there are numerous examples of reward systems that actually reward the very behaviors that the system aims to discourage while failing to reward the desired behavior (Kerr, 1995). Table 2 provides examples of such inconsistencies.

These inconsistencies fall into a number of themes:

- the inability to discard outdated perceptions of reward and recognition practices and a reluctance to commit to revamping or revitalizing performance management processes and systems;
- a lack of a holistic or overall system view of performance factors and results, stemming mostly from organizational structures that promote optimization of sub-unit results at the expense of the organization; and
- management and shareholder focus on short-term results.

Reward systems fail for two reasons. The first concerns a fascination for an "objective" criterion. Many managers seek to establish simple, quantifiable standards against which to measure and reward performance. Such efforts may be successful in highly predictable areas within an organization, but are likely to cause goal displacement when applied anywhere else. The second concerns an overemphasis on highly visible behaviors. Difficulties often arise because parts of the task are highly visible while others are not. For example, publications are a more tangible thing to demonstrate than teaching; scoring baskets and hitting home runs is more readily observable than feeding teammates and advancing base runners; reducing costs by replacing the receptionist with an answering machine is quickly evident on one's bottom line, but spending extra hours in ensuring that a customer with special needs is satisfied in a flexible, creative manner takes years to show itself in accumulated, long-term sales growth; and teamwork and cross-functional activity for the good of the overall corporation go unrewarded simply because they are difficult to observe.

Table 2

Examples of Inconsistencies Between Desired Behaviors and Reward Systems

We hope for.....	But we reward...
■ Long term growth; environmental responsibility	■ Quarterly earnings
■ Setting challenging "stretch" objectives	■ Achieving goals: "making the numbers"
■ Commitment to total quality	■ Shipping on schedule, even with defects
■ Teamwork and collaboration	■ The best team members
■ Innovative thinking and risk-taking	■ Proven methods and not making mistakes
■ Development of people skills	■ Technical achievements and accomplishments
■ Employee involvement and empowerment	■ Tight control over operations and resources
■ High achievement	■ Another year's effort

Perhaps the greatest inconsistency is a failure to understand that top managers must lead and manage the change-making effort. For example, creativity training has worked successfully as an organizational development intervention, but only when accompanied by skilful management that recognizes that more is needed than training alone. In fact, top management has a special role to play in institutionalizing the change-making process, or ensuring implementation and daily use of creativity skills in the organization.

Creativity: A New Approach to the Problem of Adaptability and Commitment

Creativity in organizations can be defined as a continuous process of deliberate problem finding, problem solving, and solution implementation (Basadur, 1992). Problem finding means continuously finding new problems to address, including not just things that are going wrong but current or future changes, trends, challenges, and opportunities. Senge, Kleiner, Roberts, Ross and Smith (1994) emphasize the importance of problem finding in adaptable organizations. By taking the time to explore background causes of problems rather than merely finding "quick fixes," members of adaptable organizations discover bigger, long-term issues and recognize the interconnectedness of decisions within the organization. This recognition is the essence of systems thinking and the starting point for making long-term, permanent improvements to the organization. Problem solving means developing new and useful solutions to identified problems. Solution implementation means making new solutions succeed. Implementation usually leads the organization to find new problems to solve. New problems arise as the system and its environment react to each newly implemented solution. Thus, organizational creativity can be viewed as a process of continuous improvement -- a circular process of continuously finding and

solving problems and implementing new solutions that enable the organization to succeed (Figure 3).

From this perspective, it is organizational creativity that provides the dynamic for organizational adaptability. This suggests that an organization can achieve adaptability if it understands and institutes the creative process. For this to happen, two things are necessary. First, employees must obtain new thinking skills (and reframe their jobs, i.e. become creative problem solvers). Second, the organization must provide a framework for directing these creative thinking skills to support its important goals and objectives.

What Organizations Must Do In Order to Become Skilled in Making Change

In order to make continuous, deliberate change for the better, organizations must learn to overcome shortcomings in individual thinking skills, teamwork and organizational design. For many individuals, problem finding is a foreign concept. For example, people usually wait for others to find problems to solve rather than actively seek out problems or avoid important problems that cross departmental lines ("That's not our problem"). Even after finding and defining problems, they find it difficult to solve them creatively and imaginatively. Individuals are critical of new ideas, for example, and thus prevent productive thinking. While many people may be able to implement routine solutions to routine problems, few can implement creative solutions to new, unprogrammed problems.

Teamwork is also often uncreative. Group members are unable to communicate clearly in simple terms, for example. Unaware of individual thinking style, groups fail to synchronize these

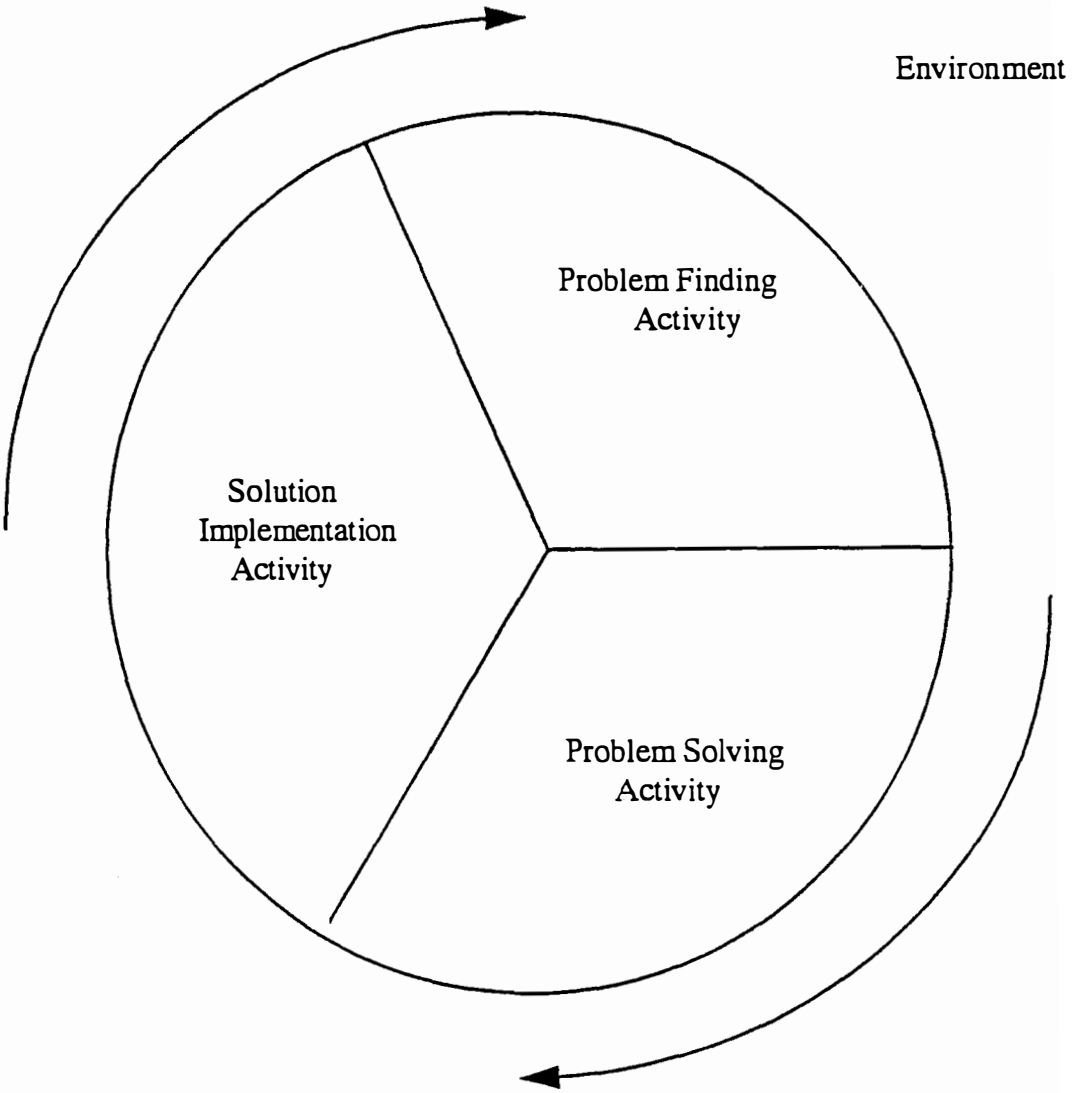

Figure 3: Creative Activity in an Organization

differences, jump into "solving the problem" without first considering what the real problem is, and then flounder. Interfunctional teams get stalled arguing about territorial issues. Meeting leaders steer toward their own points of view rather than facilitating the group to work open-mindedly and cohesively.

The design of many organizations remains along bureaucratic, functional lines -- a design that minimizes creativity. Jobs are programmed for maximum control, highest quality, and lowest cost per unit. Creativity skills and change-making are limited to short-term quick-fixes during emergencies. These organizations view problems and changes stemming from new technology, customer tastes, and foreign competition as irritants that disrupt well-functioning, established routines. (Yet the essence of change-making and continuous improvement is problem finding.)

According to Basadur, Graen, and Green (1982), these individual shortcomings can be overcome by training in specific thinking skills, behaviors, and attitudes. The training is based on two central concepts. First, the change-making process has distinctly different stages: problem generation and problem formulation (the two aspects of problem finding), problem solving and solution implementation; and, second, within each of the four critical stages, there is a sequential, two-step process called "ideation-evaluation" (Figure 4). *Ideation* means generating options without evaluation (laying aside judgment), which is the diverging aspect of this two-step process. *Evaluation* means applying judgment in order to select the best option(s), which is the converging aspect of the process. Both aspects are essential to creative thinking (Parnes, Noller, & Biondi, 1977).

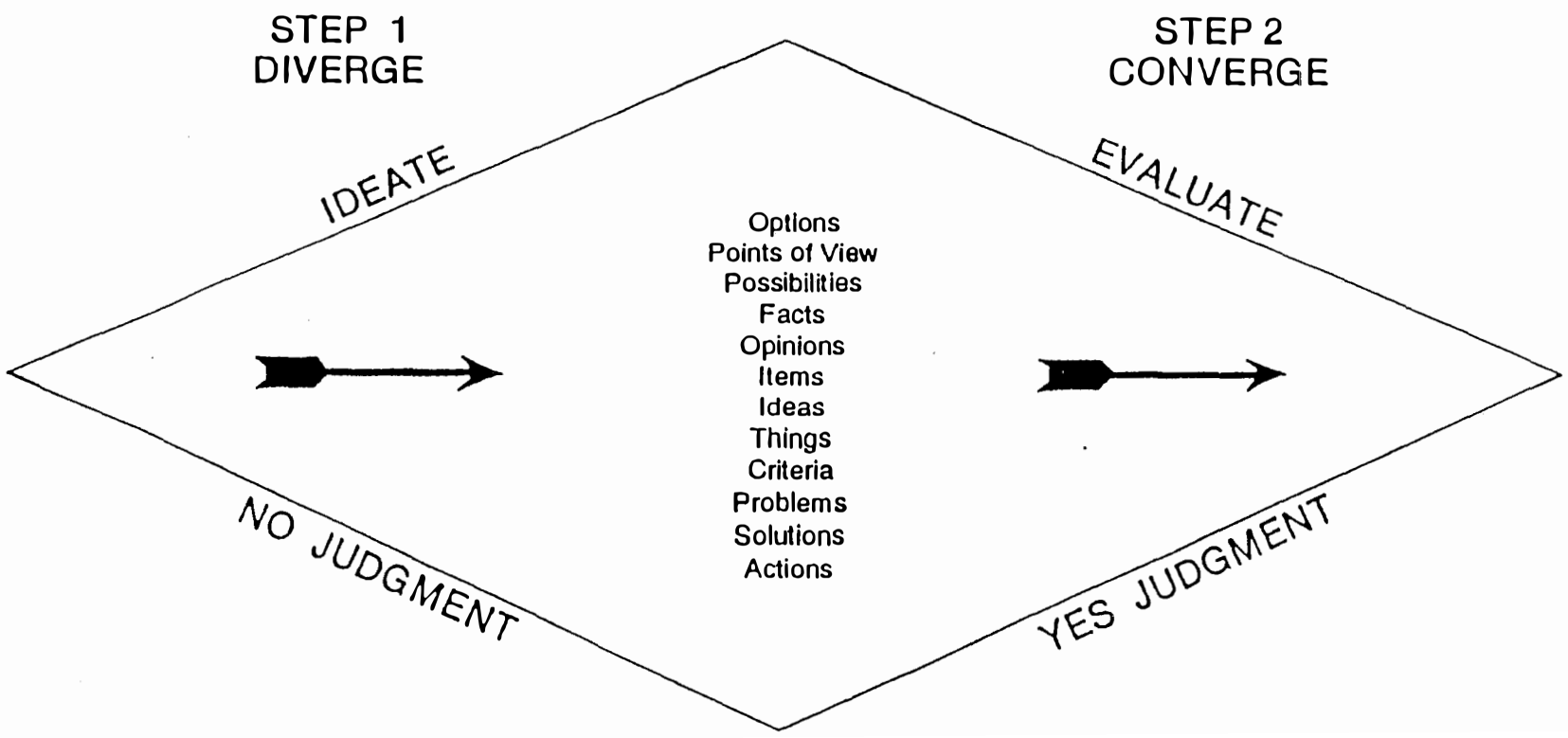

Figure 4: Ideation-Evaluation: A Sequential Two-Step Creative Thinking Miniprocess

Three distinct thinking skills are needed to execute this two-step process effectively (Basadur & Finkbeiner, 1985): deferral of judgment, active divergence, and active convergence. By separating divergent thinking from convergent thinking, deferral of judgment resists the tendency to prematurely evaluate and select options, and encourages active divergence. Active divergence enables generation of many options without judging or analyzing them. In practicing active divergence, individuals should generate a wide range of options; appreciate new, different points of view; view each option not as an end in itself but as a building block toward more options; and believe that generating novel options is not a mysterious process confined to a small number of unusual, "offbeat" people but a normal process in which everyone in the organization should participate.

Active convergence, which resists the tendency to linger in divergent thinking, selects and acts on the options that ultimately lead to implementation of change. The change-making process emphasizes these three thinking skills and the ideation-evaluation process within each of the four stages in turn, as shown in Figure 5 and Tables 3, 4 and 5.

The Circular Change-Making Process

In practice, it is useful to break the four-stage change process shown in Figure 5 into eight, smaller steps arranged in a circular flow, as in Figure 6. The first two steps are problem finding and fact finding, which collectively make up "problem generation," or Stage 1 of this change process. Steps 3 and 4 are problem definition and idea finding, which become "problem formulation" or Stage 2 of the change process. Steps 5 and 6 are called idea evaluation and selection and planning (for implementation) and constitute "problem solving," or Stage 3. The

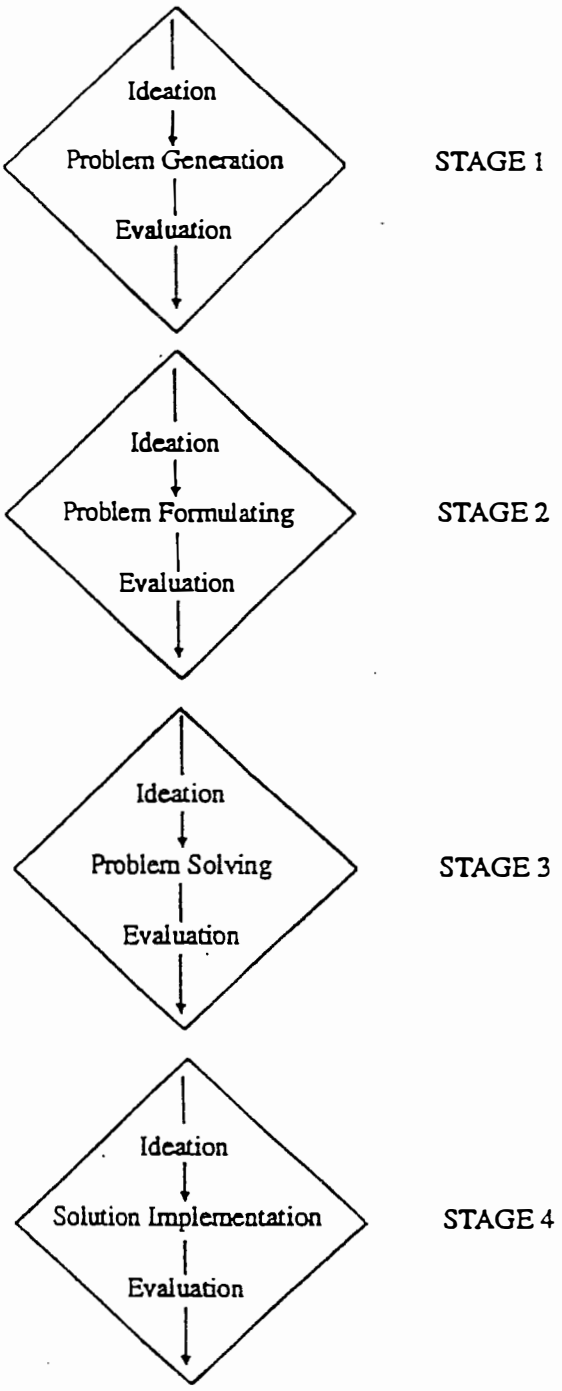

Figure 5: Change-Making as a Four-Stage Process Emphasizing the Ideation-Evaluation Two-Step Miniprocess in Each Stage

TABLE 3

Deferral of Judgment Skill

Avoid making premature, negative judgments of fledgling thoughts (both when working alone and with others).

Visibly value, appreciate and welcome other points of view as opportunities to strengthen thinking rather than as a threat to one's ego.

Maintain an awareness that some facts are more difficult to perceive than others.

Question assumptions for validity and search out hidden, unconscious assumptions that might be unwarranted.

Tackle problems with an optimistic "can do" attitude.

Do not jump prematurely to a conclusion as to what the "real problem is" in a situation.

Stay open-minded to new ideas and approaches.

Deliberately try an unusual approach to solve a problem instead of automatically relying on an old approach.

React positively to new radical ideas as opportunities to build fresh new thinking.

Enter meetings open to ideas that might change one's own function or department.

Support other people or departments getting credit or more resources as a result of a team solution that was clearly the best one for the organization as a whole.

Choose solutions that might be suboptimal in the short run but that maximize long-term results.

Realize that some problems require a long time to solve, and do not expect immediate results.

TABLE 4

Active Divergence Skill

Show leadership in pinpointing changes, trends, problems, and opportunities for improvement throughout the organization.

Share information and ideas freely with other people and departments.

Share "bad news" as quickly as "good news" to aid organizational problem solving.

Search out many different facts and points of view before attempting to define a problem.

Define problems in multiple and novel ways to get a variety of insights.

Clarify problems by breaking them down into smaller, more specific subproblems and also opening them up into broader, less limiting challenges.

Facilitate teams to formulate problems in ways that transcend individual and departmental considerations.

Deliberately push oneself to create unusual, thought-provoking potential solutions.

Generate many alternative criteria for decision-making covering both long- and short-term considerations.

Turn premature, negative evaluations of ideas into positive challenges to keep the creative process flowing; when others say "We can't because..." counter with "How might we...?"

TABLE 5

Active Convergence Skill

Convince others to join up and form teams to take on new problems.

Take the time to select, clarify, and focus on the most significant facts available prior to attempting to define a problem.

Make wise choices from among problem definition options in terms of "broadness" versus "narrowness" of focus.

Develop and use unbiased criteria for selecting from among options rather than letting preconceptions or hidden motives sway decisions.

Recognize and accept the few best options.

Be willing to accept and participate in consensus decisions and move on in the change-making process.

Take reasonable risks to get action taken within time limits rather than waiting for the "perfect" option to emerge.

Pin down clear, simple, and specific implementation plans.

Identify and accept ownership of measures of performance about the products and processes being improved.

Follow up on implementation; do whatever it takes to ensure successful installation of the chosen solution.

Take the risk of failing or being criticized for being different in implementing your ideas.

seventh and eighth steps are acceptance gaining and action taking, which constitute "solution implementation," or Stage 4. It is vital to use the two-step, ideation-evaluation process within each of the eight, smaller steps across thefour stages.

Results of Training Skills in the Change-Making Process

Additional research and experience strongly indicate that the thinking skills required for the change-making process of Figure 6 can be learned, nurtured, and managed within organizations. Basadur (1994, 1995) and Basadur, Wakabayashi, & Takai (1992) describe such training in the process of Figure 6. The training is primarily experiential and practice-oriented. Training experiences include a series of diverse, real-world tasks that encourage participants to seek out unfamiliar concepts such as ideation-evaluation or the use of the three thinking skills throughout all eight steps and four stages of Figure 6.

Using a multiple method and measure approach, Basadur et al (1982) found that, after such training in this change-making process, participants from an industrial research organization demonstrated several improvements including:

* "more likely to pause to try new, unusual approaches";
* "more open-mindedness to new ideas and approaches";
* "deferral of premature critical judgment";
* "less time spent in negative evaluation during idea generation";
* "increased quantity and quality of problems found"; and
* "increased number of different problem definitions developed."

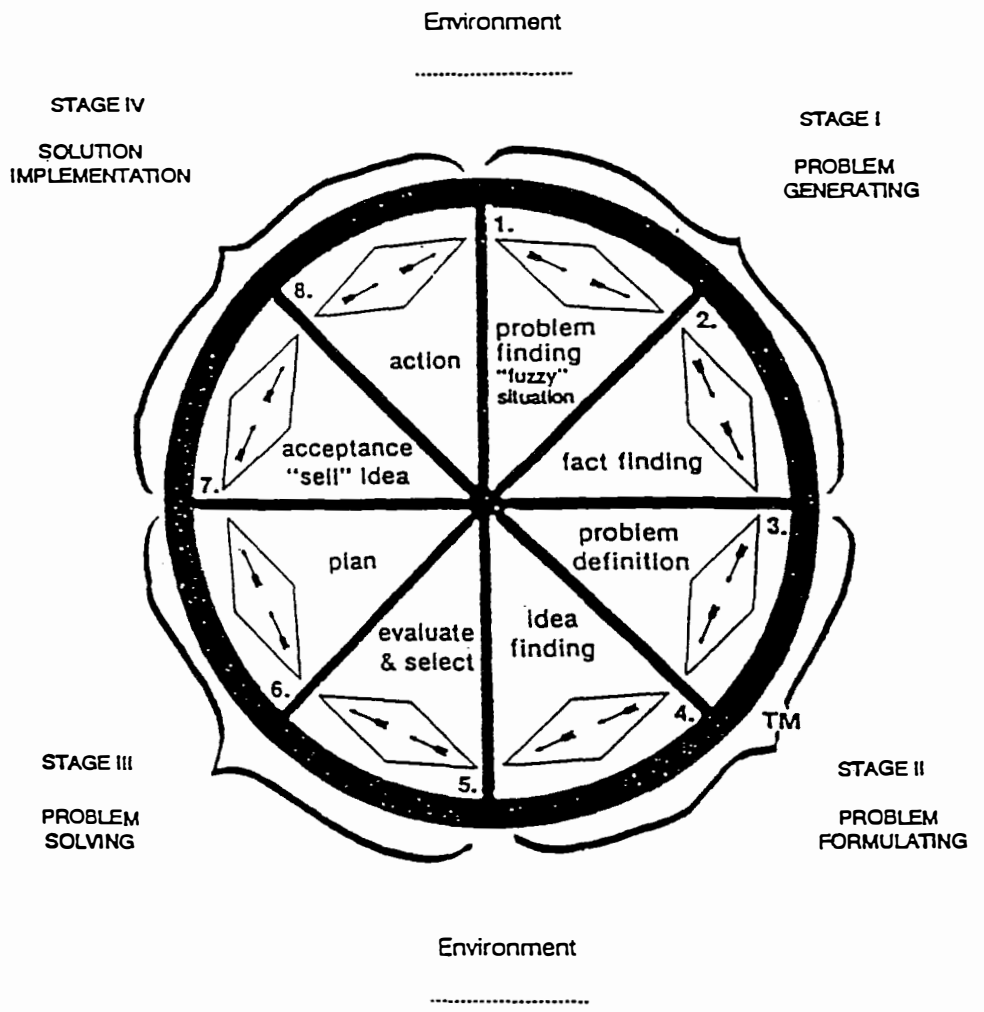

Figure 6: The Organizational Change-Making Process

Basadur, Graen, and Scandura (1986) found that training effects on manufacturing engineers persisted back on the job. Other organizational field research demonstrating the results of training in specific thinking skills, attitudes, and behaviors for both individuals and teams is summarized by Basadur (1987, 1993).

At the organizational level, top management can also be trained to apply these skills in their work as individuals and as members of executive teams. Furthermore, they can be taught how to model and encourage the use of these new skills throughout the organization. Top managers must lead by learning and visibly using the change-making process. They must also develop specific strategies to maintain the use of the process and the thinking skills (Basadur, 1993, 1994). The organization's strategic plan must include managerial activities and organizational structures to induce the organization's members to use the change-making process daily. These activities include: *Publicizing*--letting others know of successful applications of the new thinking skills; *Rewarding* (formally and informally) sincere efforts to apply the new thinking skills on the job; *Modelling* (demonstrating) a working knowledge of the new thinking skills (one cannot empower others without first understanding how to empower oneself); *Providing resources* for training and application of the new thinking skills; *Coaching/teaching*--giving others feedback on their use of the new thinking skills; *Taking visible risks and rewarding others who take risks* to make changes that improve the quality of goods and services, customer satisfaction, and work life; *Managing challenges rather than managing solutions*--involving subordinates in change-making early in the change-making process. These new activities enable subordinates to experiment and fail without feeling afraid, learn from mistakes, act as problem and challenge finders, take ownership of

problems, understand how their jobs fit with others' jobs and with organizational goals, share the ambiguity and uncertainty resulting from accelerating change, and accept the fact that no "grand scheme" exists to guide the organization.

The organization must provide a framework for directing these new thinking skills in support of the organization's goals and objectives. Four specific organizational factors that must be managed because they affect the creative process in Research and Development (R&D) organizations were identified by Baker, Winkofsky, Langmeyer, and Sweeney (1976). The first, called *diversity of information*, includes frequency of contact with diverse colleagues, variety of work activity, and frequency of contacts with technological gatekeepers (colleagues highly attuned to external sources of technical information). Opportunities for diversity of information improve with greater participation in outside professional activity, more occupational specialties within the organization, less formalization or job structure, and greater participation in organizational decision-making. The second organizational factor identified is called *organizational values and norms*. Organizational creativity is improved by greater clarity of organizational goals, objectives, needs and opportunities; by appropriate incentive systems and time pressures; and by organizational designs that appropriately balance freedom and direction. The remaining two factors are *flexibility of organizational resources* (the availability of uncommitted resources for new opportunities) and *quality of supervisory behaviors and attitudes* (assisting as a collaborator and critic, and influencing to ensure availability of rewards, conditions, and resources that encourage creative performance).

Amabile and Gryskiewicz (1989) suggested that individual creativity within an organization depends not only on the individual's creative skills and motivations but on three basic factors of the organization's social environment. These are *skills in innovation management* (which overlaps all four of the above categories by Baker et al and emphasizes skill at both the organizational and supervisory levels); the commitment to innovation at the organizational level (this could be called the *organizational motivation to innovate* and is consistent with the organizational values and norms factor above); and *adequate resources for the task*, including materials, personnel, and time (this resembles the flexibility of organizational resources factor above).

Group and Individual Level Variables Moderating Creative Behavior

Real-world organizational creativity training experiments by Cohen, Whitmeyer and Funk (1960) and Rickards (1975) provide further insights into group influences that inhibit people's use of creative thinking skills. Cohen et al found that training significantly improved creative performance on real-world managerial problems but only when individuals worked alone or in cohesive pairs, not when they worked in non-cohesive pairs. In contrast, Rickards found no improvement in performance for training groups. Importantly, no significant group cohesiveness existed in any of the groups in Rickards' experiment. The test groups of managers were all assembled only for the purposes of the experiment, and groups appear to have consisted of relative strangers. Thus, this difference in findings is consistent with social psychology research, which has determined that group cohesiveness is a major determinant of group performance.

There were also important differences between the two studies in terms of individual work-related factors, such as familiarity with and commitment to the field of work (or problem). Cohen et al

considered the effects of problem significance (ego involvement) and degree of problem familiarity to the subjects, whereas Rickards (1975) did not. When Cohen et al used a problem of high interest and knowledge to all subjects, the trained groups achieved positive results, and vice versa. Because each group problem addressed in Rickards' experiment was chosen by only "one or more" of the group participants, the other group members were probably not overly familiar with, or involved in, the problems. One can conclude that the familiarity with, and commitment to, the problem and field of work are important mediating factors in training to increase creativity.

Discovering How and Why Japanese Organizations Induce Creativity

Inducing adaptability as a continuous process of problem finding, problem solving, and solution implementation provides a major extra benefit: commitment and motivation. Basadur (1992) discovered this during his study of Japanese employee suggestion systems. One major discovery of that research is that top-notch Japanese organizations demonstrate much knowledge of inducing employee creativity through deliberate, structural means. Such organizations recognize, emphasize, support, and induce problem finding, which is accorded at least as much importance as problem solving and solution implementation. These organizations recognize that they must nurture and manage all three activities to achieve organizational creativity.

One such company automatically places newly hired R&D engineers and scientists into the sales department for a lengthy period to begin their careers. The purpose? To have them learn the importance of problem finding and to develop skills in learning what problems the company's

customers are experiencing. The rest of their careers will focus on developing solutions for these problems in the form of new and improved products.

In order to induce creativity throughout the organization, these Japanese companies also manage their employee suggestion system to induce creative behavior, to derive creative output including short-term cost savings and new products and procedures, and to motivate members of the organization. Among other important benefits of the systems: motivated, committed people who enjoy their jobs, participate in teamwork, and involve themselves fully in achieving company goals.

Motivation is the Outcome

When asked about the primary objective of their employee suggestion system, none of the top managers of these leading Japanese companies mentioned economic outcomes, such as producing new products or new methods, or attaining lower costs or higher profits. Rather, they all mentioned one thing: motivated people. These organizations believe that workers become motivated when they are given a chance to exercise creativity. Given the opportunity to engage in creative problem solving (as it has been described here), workers become extremely motivated and desire even more participation in creative activity. They work harder at perfecting their routine jobs to increase quality and quantity and reduce costs, thus increasing organizational efficiency and short-term organizational effectiveness. Creative activity also stimulates team building as people help each other solve problems.

Consistency with Motivational Research

The concept of motivating people by providing an opportunity for creative activity is consistent with the motivation literature in industrial and organizational psychology, including the category of need theories. Two important motivational need sets are the need for competence and the need for curiosity and activity. These two needs and related motives provide the most direct explanation of how creativity serves to motivate people. The need for competence arises when people face new, challenging situations, and dissipates after repeated mastery of the task. The concept of intrinsic motivation is also consistent with the notion that curiosity, activity, and exploration are enjoyed for their own sake. People develop negative attitudes toward repetitive tasks and report experiencing fatigue and boredom. Berlyne (1967) suggests that people adapt to certain levels of stimulation and act to reduce discrepancies from these levels. The implication resembles Herzberg, Mausner and Snyderman's (1959) research suggesting that challenging jobs are motivating in themselves.

Other motivation theories are also consistent with practices of the Japanese companies in this study. Herzberg et al propose that the way to motivate most people is to redesign their jobs so that the work encourages growth, challenge, stimulation, learning, and recognition. McClelland (1951) has suggested that the primary motivator for employees is their need for achievement. By giving employees the opportunity to find challenging problems, solve them, and implement the solutions, the employee suggestion system taps into both the forces of intrinsically rewarding work and the need for achievement. According to Maslow (1954), offering employees the opportunity to satisfy their higher level needs for self-esteem and for self-actualization through work accomplishment is the best way to motivate them. The Japanese employee suggestion

system is a straightforward example of how to meet these two needs. Given an opportunity to use their creativity, people seek out work-related challenges that interest them, then find success and recognition in developing implementable solutions.

Impacts and Outcomes -- Economic and People - of Creativity in Organizations

Thus, organizations can address the problems of commitment and adaptability in bureaucratic organizations by using organizational development interventions that increase and manage creativity. Increased creativity can improve virtually every kind of organization with such specific results as new products and methods, increased efficiency, greater motivation, job satisfaction, teamwork, focus on customer satisfaction, and more strategic thinking at all levels (Basadur, 1993). However, senior management must commit to doing what is necessary to make these interventions really work. The organization must determine what results it intends to achieve through creativity, and understand that success will not come overnight. It must make a long-term commitment in order to develop creative behavior and reap the attendant benefits.

By inducing and nurturing creative activity, organizations can expect to reap two kinds of specific outcomes: economic outcomes and people outcomes. The economic outcomes include:

* new and improved products and services;
* increased quantity and quality and lower costs of current products and services;
* quicker reactions to unexpected events;
* reduced turnover and absenteeism;
* clearer corporate visions and goals;

* more appropriate and successful organizational designs; and

* faster project completion times.

The people outcomes include:

* higher-level thinking skills associated with organizational adaptability;

* improved strategic thinking and customer satisfaction focus throughout the organization;

* new managerial leadership skills based on coaching, facilitating, and consulting;

* greater personal and organizational goal congruency;

* more rational decision-making;

* interlocking goal-setting across departments and between hierarchical levels; and

* interfunctional co-operation;

* more accurate selection and placement of people;

* better matching of interests and skills to jobs and career paths;

* better performance appraisal procedures;

* increases in: job satisfaction; trust; motivation; commitment; involvement; group interaction; teamwork; job enrichment; personal development; initiative; confidence.

Organizations can expect to achieve these outcomes if they systematically tailor and manage an OD process, anchored by effective training in creative thinking, for unfreezing and changing. The

organization must integrate additional interventions for refreezing. These multiple interventions must affect a number of additional, individual, group and organizational factors that can be included in two categories: business need and infrastructure. A business need encompasses the notions of clarity of objectives, and individual and organizational motivation to innovate; infrastructure encompasses the notions of organizational values and norms, including incentive systems, organizational design factors that balance freedom and direction appropriately, group cohesiveness, diversity of information, and individual familiarity with the work.

Training in a creative problem solving process can be implemented as an OD intervention supported by appropriate business need and infrastructure interventions in either of two ways (Basadur, 1995). The easiest way is to integrate it into an existing corporate improvement initiative, say, a total quality management program. Rather than reinvent the wheel, the training is positioned as enhancing an existing (and perhaps flagging) program, thus averting the "Oh no, not another program" reaction. On the other hand, if the organization has no improvement initiative at the moment, then it can start afresh establishing an innovation process based on the process and the training. In this case the organization's leaders must identify a clear business need and establish an infrastructure that will encourage routine use of the creative skills trained. Whichever approach is taken, the trained creativity skills will die unless they clearly address an important business need and are integrated into a solid infrastructure (Figure 7).

Many worthwhile initiatives have floundered because the organization lacked at least one of these three components. The organization might have introduced a training intervention without linking it to a specific goal that employees could understand and buy into. Organizational leaders must

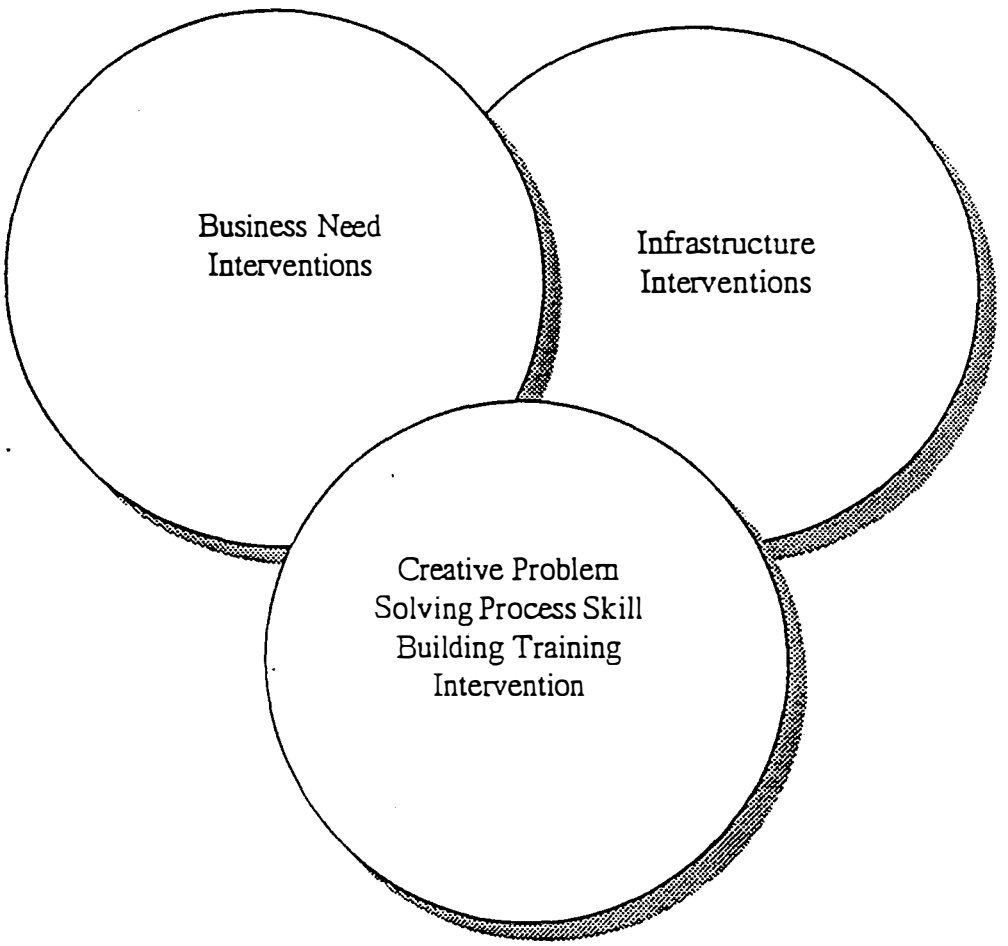

Figure 7: The Three Necessary Components of a Successful Organizational Development Effort to Mainstream Innovation.

spell out a clear business need that the training is intended to address, such as lower costs, higher sales, fewer defects or customer complaints, shorter turnaround time or time to market, higher quality products or services. For example, one of the most popular organizational development interventions of the past decade in the world has been total quality management (TQM) programs. Many very successful companies have introduced a TQM program for no better reason than they don't want to miss out on something or that everyone else is doing it. Launching the initiative without a clear goal is like setting employees adrift in a rowboat out of sight of land. The new initiative addresses no specific business need and employees have no way to measure success.

Other initiatives have floundered because the organization lacked an effective infrastructure to encourage people to use the new philosophies and tools regularly. In order to make the initiatives work, structural changes must be implemented to provide employees with the time, place and motivation to implement the new ideas. Performance appraisal systems must be altered to reward people who apply these new ideas. Teamwork is another "structure" established specifically to address important problems that relate directly to the business need and to other vital company goals and objectives. People need to know they are going to be rewarded for implementing a new initiative, and must be given the necessary time and resources to do so. If they're going to make valuable changes, they must believe that the new initiative is part of their job, not just something "extra". This is accomplished through multiple OD interventions.

Even when organizations establish clear business needs and infrastructures for implementing new initiatives, they still hit roadblocks. Many organizations have attempted to implement new OD programs without realizing just how much they are expecting of their employees. In effect, the

organization is asking people to fundamentally change the way in which they work. Managers underestimate what it takes to alter people's change-making skills, attitudes and behaviors.

First, many organizations fail to provide adequate training in change-making. That is, the skills in creative thinking and problem solving are not adequately developed, either because the training program is inadequate or of insufficient duration. Even if the correct business need and infrastructure components were in place, the third component would thus be missing. People must learn the skills of seeking "golden eggs" (Basadur, 1992) and embracing the creative problem solving process in order to make continuous improvements. As discussed earlier in this paper, in order to help employees and teams use this process to deliberately find and solve problems and implement solutions, the organization must train them in the process skills of deferral judgment, active divergence and active convergence. No improvement initiative or philosophy will work unless people acquire skills in looking at things in new ways, and looking positively on change. In other words, the organization has to introduce its improvement initiative as a process to be implemented, not merely as "content" to be presented.

It was this very point that made TQM so successful in Japan. After the Second World War, the Japanese realized that the quality of their manufactured products lagged worldwide standards badly. They deliberately changed their management and production methods. Employees were encouraged to apply creative thinking to improve their work. Over the next few decades; Japanese products and services gradually became world leaders in quality.

Japanese managers have emphasized the amount of effort it takes to establish successful OD programs such as quality circles and employee suggestion systems. A typical statement is: "It

took us nine years to establish quality circles and even longer to set up our employee suggestion systems. People resisted at first, but we persisted, continuing to polish the program and train employees. Finally, these new systems became permanent." In other words, these initiatives were not expected to work overnight. But having decided to change, these managers deliberately invested the effort into acquiring the necessary change-making process skills to do so.

In many organizations, OD fails because the employees are missing these creativity process skills. For example, TQM is usually presented as nothing more than a philosophy and a kit of tools, including statistical process control and flow-charting. Many other new managerial method interventions have become no more than passing fads for the same reasons. Management by objectives, T-groups, and intrapreneuring can fail because the companies adopt the philosophy but pay lip service to translating theory into action. Most important, they underestimate what it takes to alter people's change-making skills, attitudes and behaviors.

To mainstream innovation and adaptability and commitment, an organization must integrate skills in the creative problem solving process into its daily routine. And it must establish a clear-cut business need and infrastructure to encourage employees to use the skills on the job. Organizations have generally failed to accomplish these tasks. In fact, the value of OD has been debated endlessly since its inception. There are many skeptics who claim that investments in OD don't end up on the bottom line. Similarly, TQM, the overwhelmingly most popular OD approach during the last several years, has been criticized widely as becoming another "flavor of the month." TQM interventions, as well as other traditional OD interventions, often fall short because they are perceived by employees as a "bunch of tools and techniques, slogans and rhetoric".

Often, well-meaning organizations attempting TQM fail to understand it as an ongoing *process* of continuous change-making, organization-al development, adaptability and creativity. This creative process requires a set of thinking skills that must be applied continuously on the job at every level in the organization (although the skills are applied differently at various levels.)

Few North American corporations have developed successful TQM systems. This lack of success usually stems from an under-estimation of the major changes in organizational behavior and structure that are involved. Dertouzos, Lester and Solow (1989) document several fundamental weaknesses at the root of the inability to change to improve productivity among North American industries. Among these weaknesses are short time horizons (a preoccupation with near-term outcomes and results); lack of co-operation between individuals and groups (unwillingness or inability to pursue collective goals among departments, suppliers, customers and others); neglect of human resources (undervaluing the importance of continuously developing and challenging workers' skills); technological weaknesses in development and production (the inability to convert new inventions and discoveries from basic research quickly and efficiently into products that customers want, when they want them); and outdated strategies (managers and workers "respond" to the new challenges of foreign competition and changing customer tastes by clinging to production and organizational patterns associated with mass production of standard, commodity goods and competing only within the domestic market). Short time horizons push top management and staff to implement preplanned TQM programs hastily without adequately developing the commitment of middle and lower management, providing needed training, setting up reinforcement systems, or allowing sufficient time for participation, buy-in and ownership. Furthermore, they expect to see a short-term increase in the bottom line. Introducing TQM often

amounts to nothing more than short-term quality programs consisting of rhetoric and training in "tools" and "techniques." The training is conducted less to develop human resources for the long term and more to present tools and techniques in hopes of gaining a short-term profit.

Because fundamental changes in organizational behavior and structure that are needed to support the ongoing, everyday use of the new tools and techniques are not made, employees are confused about how to fit the new tools and techniques into their responsibilities. For example, if they observe their managers still behaving as though short-term profit were more important than quality, they will likely consider these tools and techniques as "extra" things that are really not too important.

Middle managers are confused by the rhetoric about quality, customer service and shared goal-setting when short-term cost savings, staff reduction and profit goals are unilaterally set for them by their superiors. Implementation is stymied, causing top management to become frustrated. The basic concept of TQM is appealing. But the necessary new attitudes, behaviors, skills and systems favoring TQM's strategic goals are much more difficult to develop.

In contrast, TQM has been implemented very successfully in Japan. The concepts, tools and techniques of TQM have worked in Japan because they represent only part of a larger managerial philosophy and organizational system. Under this philosophy, management leads the entire organization in a complete and single-minded commitment to key strategic goals reported by Rehder and Ralston (1984): seek quality before profits; build a long-term customer orientation; develop employees through education, delegation and positive reinforcement; communicate facts

and statistical data about quality throughout the organization; and establish a company-wide system of problem solving and communication.

TQM has been successful even outside of Japan but only where it has been viewed as an organization-wide creative problem solving process for ongoing innovation and continuous improvement to be managed with change-making skills which are congruent with the skills, multiple interventions, reward systems and senior management leadership and modelling of the change-making skills.

In summary, this paper advocates a new approach to Organizational Development. To be useful, OD must be understood as a *process*, not just a program of interventions and philosophies of "what's good" for organizations. Furthermore, OD is a process of organizational adaptability, that is a process of creativity which provides continuous and deliberate change, improvement, and innovation. Such a creative process can be learned, implemented and mainstreamed. Organizations which have successfully implemented TQM as an OD intervention have understood this point. Where TQM has failed, it has been misunderstood as a *program*, not a process; that is, merely a set of tools, techniques, and rhetoric about customer-oriented values (Basadur and Robinson, 1993). In effect, successful TQM <u>is</u> successful OD. Successful TQM requires a companywide effort to install and make permanent a climate where employees continuously improve their ability to provide products and services on demand that customers will find of particular value.

The fundamental belief in change for continuous improvement is applied by Xerox Corporation, a successful implementor of TQM in North America. Xerox defines TQM as *a long-term process*

aimed at fundamentally changing the way people work and manage so they can continuously improve the way they meet the requirements of their customers. Xerox recognized that implanting this view of quality would require massive behavioral change. At the beginning of Xerox's development of TQM, a strategy was developed to identify mechanisms for change. The first mechanism identified was to ensure that visible management actions set the tone for change-making.

OD is a change-making process. In order to implement specific OD interventions, one must be skilled at the creative change-making process first. The interventions simply follow as tools and techniques to help implement the steps of the creative process described in Figure 6. Therefore, training in this creative process to build change-making skills should precede any attempt at traditional OD including TQM. Classic OD interventions should be attempted only after careful problem definition and only as part of the change (creativity) process.

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