A Learning-Based Approach

to Leading Change

Barry Sugarman
Lesley University
and
Society for Organizational Learning

The PricewaterhouseCoopers Endowment for
The Business of Government

A Learning-Based Approach

to Leading Change

Barry Sugarman
Lesley University
and
Society for Organizational Learning

December 2000

TABLE OF CONTENTS

Foreword

December 2000

On behalf of The PricewaterhouseCoopers Endowment for The Business of Government, we are pleased to present this report by Barry Sugarman, "A Learning-Based Approach to Leading Change."

The new economy has challenged organizations in both the private and public sector to shift from older, more traditional organizational models of bureaucracy to new, more flexible models. The government sector has experienced major change in terms of significantly increased demands from its "customers." The traditional model of bureaucratic organization may no longer be sufficient to meet the demands for improved service and greater efficiencies in large-scale programs. These changes demand a new model — that model, posits Professor Sugarman, is the learning organization.

The learning organization is one that is "continually improving its ability to be more effective in meeting goals that are important to its members," and capable of reinventing itself when necessary. To move an organization towards becoming a learning organization, Professor Sugarman presents the "Learning-Based Change Model." This model takes the approach of introducing new ideas, then nurturing and protecting them while they grow stronger. It relies to a great extent on the power of the grass roots rather than on change from the top down.

Professor Sugarman presents three case studies of ongoing learning-based change initiatives in three different federal government agencies. These organizations were working in partnership with the Society for Organizational Learning to pilot a new model of learning-based change.

It is our hope that this report will prove thought-provoking and helpful to senior executives, middle managers, supervisors, work group leaders, human resource development staff, and others who are involved in organizational change efforts.

Paul Lawrence
Partner, PricewaterhouseCoopers
Co-Chair, Endowment Advisory Board
paul.lawrence@us.pwcglobal.com

Ian Littman
Partner, PricewaterhouseCoopers
Co-Chair, Endowment Advisory Board
ian.littman@us.pwcglobal.com

Executive Summary

This report presents a brief version of the "learning-based approach" to organizational change leadership, based on the ideas of the learning organization. For the practical executive and change leader at any level, it presents 14 key elements that are necessary for planting the seeds of a learning organization and helping an organization to shift in that direction.

The new model and new thinking that are involved in this approach are illustrated concretely through three case studies. They are ongoing learning-based change initiatives in three different federal government agencies. Leaders within five federal agencies began a partnership with the Society for Organizational Learning (SoL) to try out this approach. Interviews and observations were conducted in order to understand better the process of change in these agencies.

These cases represent some early results from organizational change initiatives that have not yet achieved full fruition. Unlike many other reports of change projects, these cases were not selected as the pick of the crop of proven successes. This is an interim report and think piece based on an experiment still in progress. These cases offer the chance to observe, reflect upon, and analyze some of the complexities of guided organizational change in government settings.

Introduction

The concepts and management tools of "the learning organization" and "the learning-based approach to change leadership" have been found to be very useful for better understanding and improving the ways that organizations change themselves. Today all organizations face unprecedented levels of demand for better results — in the government, as much as anywhere else — for new levels of service and response, for greater efficiency to produce more with less resources, and to take advantage of new opportunities, such as the Internet. While most of our experience so far with the learning-based approach to change management comes mainly from the business sector, it is important that we also evaluate this approach in the public sector. That is what this report begins to do through several case studies in the U.S. federal government.

Leaders within several federal agencies began a partnership with the Society for Organizational Learning (SoL) to try this approach, starting just over a year ago. That came about as the result of an earlier four-year partnership between SoL and the New England Regional Office of the Environmental Protection Agency (EPA). Interviews and observations were conducted in order to understand the process of change in these agencies. These data are analyzed in the light of our experience with earlier change initiatives in the business world, sponsored by SOL and its predecessor, the MIT Center for Organizational Learning.

The information presented here represents early results from organizational change initiatives that are expected to take much longer to reach full fruition. Unlike many other reports of change projects, these cases were not selected as the pick of the crop of proven successes. This is an interim report and think piece based on an experiment still in process.

Demands for Change in the Government

There have been significant changes (improvements) in the management of government agencies over the past decade, and there continue to be enormous pressures for these agencies to change more for a variety of reasons:

- The gap between ever-increasing demands and restricted resources constantly expands as the consumer revolution creates demands for higher standards of service to citizens.

- Changes in technology and other external factors create new threats and opportunities.

- Industry groups and others who are subject to government regulation have become more demanding, and elected officials have become more receptive to their demands.

- Meanwhile, there is new thinking about the respective roles of federal, state, and local governments; corporations and industry groups; and private, nonprofit service and advocacy groups. For example, there are notions of *partnership* between government and private groups, as well as between levels of government, in many areas (such as environmental protection; regulating the safety of food, drugs,

and medical devices; and ensuring that services are provided to disabled children and their families) which require great change in how government managers define and conduct their work.

- Lastly, the vast changes in our world (many based on new technology) present never-ending new challenges to government — genetic research and new questions of ethics and regulation, the AIDS epidemic, the economic stress on all health-care systems, protection of the infrastructure of the Internet now that both economic and national security systems depend on it. In short, the demand for more change in government will only get greater.

Basic Ideas About Change Leadership

In spite of the huge and relatively recent demand for more change in government, the role of change leader is unfamiliar to many public managers and many have serious misconceptions about it. People's *ideas and assumptions* about change and leadership are very important because they greatly affect how people act (or refuse to act) as leaders and as followers who shape what leaders can accomplish. One deeply rooted assumption is the belief that change depends on some rare, extraordinary kind of individual who calls to us from a high position in the organization ("the hero on the white horse") and that we must wait for the arrival of this charismatic senior change leader before we can make any contribution to change. This idea is highly questionable and may be very harmful. A different view is the idea of the learning organization and the learning-based approach to change management, which suggest a different view of the change process in organizations. This report is offered as a brief introduction to that view.

This introduction is intended to be relevant and useful to several groups of readers, not just to senior executives but also to middle managers, supervisors, work group leaders (including official leaders), human resource development staff, individual contributors who are frustrated by the limits the organization places on their talents, and to "live wires" of all kinds. Hidden (or perhaps not hidden) within government agencies are plenty of people with good ideas and the ability to develop

significant improvements, but there are serious barriers to these potential change agents being heard and working together. Therefore, the role of the change leader is basically to encourage them and to remove those barriers.

Lucky senior executives may find members of their agencies coming forward with proposals for change that they want to implement, just asking for a little support; but more often the senior executive who wants to promote meaningful change will need to signal to staff that such efforts will be appropriately supported. What is "appropriate"? What does it take to create a change initiative? That is the focus of this report. At a very introductory level we shall present some of the necessary elements needed in a learning-based organizational change initiative.

Important ideas are often truly simple at their core, but they get overlaid by related but non-essential elements. In this case the central idea is the following: *There is sufficient talent and energy at the grassroots level of most organizations to make significant improvements, but long experience with organizational barriers has led those people to be frustrated and discouraged, which then leads them to develop beliefs that change is impossible in this agency.*

It is impossible, they believe, because "the others" (their colleagues and bosses) would not support or allow it. "They" appear to be major barriers. But originally, they were just like the would-be innovators, full of ideas and energy to make things better. Over time, many have become trapped in a vicious cycle of disappointment, in which we refuse to get hurt anymore, so we protect ourselves behind defensive beliefs that cloak the fact that we care about making things better. This creates a cycle in which we each confirm the fears of our colleagues ("they would not stick their necks out to support a new idea"), while we all retreat into defensive cynicism. In the business world the competitive marketplace tends to blast employees out of that situation, with big rewards for those who succeed and job loss for those who fail.

The Public Sector's Advantage

The public sector faces a big challenge to meet vastly increased expectations with tighter resources and with some significant structural barriers not

faced in the private sector. Yet the public sector also has one special asset — its public, common, patriotic purpose. It exists to create public value — for example, safe food and drugs, security against crime and external enemies, clean water, safe air travel, a banking system and financial institutions with integrity. This work is essential to the foundations of our civic society and to the survival of the nation. It is work to be proud of, and many government workers choose it for that reason. This commitment to the ideals of the public good, held by many government workers, should be a big asset to those who wish to light more fires of change in government agencies. For the learning-based approach believes that one crucial element in leading change is to rediscover how much we really care about making things better and to help others to rediscover that they do, too.

We shall now introduce the learning-based approach to leading change in two parts. First, we present the idea of the "learning organization" as the ideal state towards which we are aiming to ove. Then we present a very simplified version of the change process involved, the process that leaders at all levels can understand and use, which we call "the learning-based approach to leading change."

What Is a "Learning Organization"?

Organizations that understand how fast the world is changing and what that means for their survivability aspire to be "learning organizations." For Peter Senge [Senge, 1990, 1999], a "learning organization" is an organization that is continually improving its ability to be more effective in meeting goals that are really important to its members. A one-time improvement, however impressive, does not make a learning organization; it requires a state of continuous improvement and improving the way that improvements are made. A learning organization is capable of reinventing itself when necessary.

The learning organization can also be called a "new model" organization. Either way, the difference between "old model" and "new model" organizations is profound. The "old model" organization operates by a *basic formula* that defines how to run the organization: how to obtain the necessary inputs (including resources, licenses, and charters), how to transform them into the appropriate products and services, and how to get them into the hands of those who need them, earning appreciation or at least support for the organization's continued existence. That broad definition should cover both government agencies and businesses in the free market.

The "old model" formula-driven organization spends little time or effort on innovation or improvement. The "new model" or "learning

organization" is the opposite. It devotes a major part of its efforts to discovering new ways, not presently known to it. It seeks new formulas, knowing that they can last only a limited time before needing replacement. The way that the old model organization depends on its embedded formula, without giving it any thought, does not exist in the new model, learning organization. Here there is much thought given to how and why things are done a certain way, because they must be improved on continuously, and because they may need to be replaced in the event that sudden changes in the environment should make the old way unviable. The new model, or learning organization, lives in a state of permanent change. Naturally, it requires a very different kind of organization and very different behavior and thinking from all its members.

This contrast between old model and new model is deliberately over-simplified in order to make an important point. We are not describing actual cases right now. In fact, these two models or types do not exist in the real world; they are mental constructs which we may use to help us understand the real world — or we may reject them. Most real organizations have some features of both types; there are very few, if any real examples that are as simple or as extreme as the models. Yet they can be useful in helping us to understand how organizations differ in the way they function. The old and new models may be considered as end points on a continuum

A Learning-Based Approach to Leading Change

where few examples lie at the ends, but many are close enough to be classified as nearer to one model than the other.

The "New Model" or "Learning" Organization

Organization researchers, looking at both government and business sectors, have contrasted the "old model" of modern administration, known proudly as "bureaucracy," with newer models of organization that have been emerging in the latter part of the 20th century. By contrast with the old bureaucratic model that laid the foundations of the modern state and the industrial revolution in the late 19th and early 20th century, these newer models of organization aimed to add new kinds of flexibility onto the base of dependability which was a large part of the legacy of the old model.

The business sector discovered its need for a "new model" of organization and management as it entered an era of intense global competition, the info-telecom revolution, and the knowledge-based economy. (Burns and Stalker, Lawrence and Lorsch, Mintzberg, Ouchi, Pascale and Athos, Quinn) Whereas the old model of production and distribution had enabled the Allies to win the Second World War and to rebuild during the post-war era of shortage, the new economy of abundant supply, fierce global competition, empowered consumers, and more talented workers demanded a different model. That new model was, in effect, the learning organization.

The government sector experienced its own shake-up in terms of significantly changed demands from its "customers." The traditional model would no longer suffice here either, in the face of new levels of demand for improved service and efficiency in large-scale programs, and for new effectiveness in specially challenging areas, such as preparing for Y2K, mapping the human genome, defeating global terrorism, exploring Mars, and reducing welfare dependency. Max Weber's classic model of stable, honest, rule-governed bureaucracy is no longer a suitable standard for an excellent government agency in the new millennium. In the words of a recent commentator, "Reinventing government means more than creating a government that works better and costs less. It means going beyond the industrial-age model of governance." It requires new thinking and a new model.

We may contrast the new and old models on seven key points. The same differences in organizational design between new and old models will be found to be important, I maintain, in both government and business sectors.

The basic **strategy** of the old model organization is replication or mass production, always following the basic formula, pattern, or rule book, while the new model is innovation as needed to meet (or anticipate) the requirements of the customer, current or anticipated.

The basic **structure** of the old model organization is hierarchy, with emphasis on respect for the chain of command. At the top of the hierarchy are the few who alone have the whole picture of the organization's strategy, so staff must depend on them for approval of any initiative. The new model approach of structure is heterogeneous, with many project teams. Many people (possibly all of them) have the big picture.

The basic **system** of the old model organization is formalized, with explicit rules, policies, and procedures being used. It runs by its standard operating procedures, which are documented and available to all, unlike the new model where systems are more informal, because they are frequently evolving and changing. Staff mutually adjust and coordinate informally (without waiting for supervisors to tell them how) in the new model.

The basic **style** of the old model organization is one of conformity and "please the boss," whereas the new organization emphasizes learning and creativity to please the customer above all. This is sometimes described as a shift from a vertical (hierarchical) emphasis to a horizontal (customer-focused) emphasis, with the value-chain flowing horizontally across all the components of the organization as they contribute to the final result, which is delivered to the all-important customer.

The **staffing** of the old model organization is based on clarity about roles and duties (i.e., job descriptions are taken very seriously), whereas the new organization is flexible about job boundaries,

allowing staff to adapt their jobs as they innovate. The new organization encourages staff to be passionate about their work, unlike the old model bureaucracy which expected staff to be impersonal and dispassionate, leaving their personal "baggage" at home.

The **skills** model of the old type organization was to have narrowly specialized roles, but the new model organization prefers skill clusters and cross-training of staff so they can be more versatile and support a flexible system, with workers switching their duties as the need arises. Therefore, the number of different job categories tends to be reduced in the new model.

Finally we compare the old and new models in terms of their purpose or **superordinate goals**. In the old model these ultimate goals are different for the public and private sectors. In the private (business) sector the old model goals are to create profits and rising share values for investors, while in government the old model goals are to administer programs and policies authorized by the legislature and created by senior officials of the executive branch. Because the thinking of the new model about organizational purpose is quite different, it is possible to combine both public and private under one set of superordinate goals: to fulfill a shared vision of the organization's mission through creative work in a community of employees, partners, and stakeholders (see Figure 1).

This view of the purpose (superordinate goal) of a public (government) agency is idealistic. It presents the ideal of an organization staffed by workers, managers, and leaders who strive to develop a shared understanding of its mission, together with the various customers and other stakeholders. Their creativity is required both for negotiating this shared vision and for the continuous improvement of performance, with ever tighter resources. A degree of success in this context offers considerable intrinsic rewards, more so than did the old model. Instead of being just a program administrator, as in the old model, the new model public manager tries to act as a significant player in a process of negotiating among diverse stakeholders. "Instead of simply devising the means for achieving mandated purposes, they become explorers who seek to discover, define, and produce public value." [Moore, 1995, p. 20.]

Figure 1

	Old Model Bureaucracy	**New Model** Learning Organization
Strategy	Replicate. Follow the formula. Mass produce.	Innovate to please the customer.
Structure	Hierarchy. Vertical. Chain of command. Big picture held at the top.	Networks. Horizontal. Many project teams. Maybe matrix. Everyone has the big picture.
Systems	Formalized. Coordination by rule book. Standard operating procedures very important.	Informal. Coordination by mutual adjustment.
Style	Conformity. Please the boss. Politics. "Everything in its place."	Creativity. Learning. Participation. Dialogue. Politics (rivalry) over priorities and strategies.
Staffing	Role clarity. Dispassionate.	Flexible job boundaries. Passion about their work.
Skills	Narrowly specialized.	Versatile. Cross-trained.
Purpose (Superordinate Goals)	Create profits and rising share values for investors. (BUSINESS) Administer programs and policies authorized by the legislature. (GOVERNMENT)	Fulfill a shared vision of organization mission through creative work in a community of employees, partners, and stake-holders. (BOTH GOVERNMENT AND BUSINESS.)

Creating a Learning Organization in (part of) an Auto Company (Case Study)

"AutoCo" is one of the big three Detroit car makers, and "Epsilon" was its program to create a new design and production tools for one of its luxury passenger vehicles (Roth and Kleiner). The program manager and his team were responsible for creating the design and being ready to launch production by a date some three years away, meeting many quality standards, and for staying within a cost budget. This would require the coordinated efforts of never less than 300 and as many as 1,000 employees, mainly engineers.

The program director came in with a personal goal, not only to produce a great car design, but to improve drastically the *process* of program development and the production launch. Having worked on several prior new car programs, he was familiar with the customary period of panic, out-of-control stress, and pandemonium in the last phase, just before launch, where everyone would be working extreme amounts of overtime, trying (always unsuccessfully) to launch on schedule. He was convinced that this was unnecessary and could be avoided by better management. Exactly how, he did not know, but he was fortunate that his deputy had become interested in learning organizations, especially the version being developed at MIT.

A consulting research team from MIT agreed to work with the Epsilon program leaders. While the MIT team had many ideas and tools to offer, they did not have a fully developed "package," and it was agreed that they would work as partners with the Epsilon team in a joint learning experience.

A "core learning team" was formed with 10 Epsilon managers and several staff from MIT, which met every month or two for a period of eight months. They conducted joint assessments on their team working issues and began learning and practicing the basic concepts and tools of organizational learning. Before asking the rest of the program staff to become involved in changes, members of this leadership group first engaged *themselves* in some very serious learning and change. When it was time for the learning labs, some senior Epsilon managers from the core learning team acted as teachers and coaches for the other staff, with the help of internal AutoCo consultants.

The training agenda and content were developed by the core learning team. Several members interviewed other program staff about their "greatest challenges and strengths." The core team used that data to study the central question: "Why are our parts always late?" Working together they created a systems map (causal loops) of many factors, which led to discovering the root cause and point of leverage. It was the fact that engineers who were having a problem with their component would not report this until very late, which would cause other dependent elements to be even further delayed, compounding the problem. Had the problem been revealed earlier, others could have helped to speed up the solution and prevent the escalation effect.

Concealing problems in one's own area, they learned, was a consistent pattern. The core team discussed why this happened, concluding that it was a combination of "engineering culture" (don't report any problem until you know the solution) and a company culture in which reporting problems would be held against someone, downgrading his or her performance appraisals and reputation. The Epsilon core team wanted to change that and realized that it would require establishing greater trust among the program staff, trust that "bearing bad tidings" would be safe. This required change

in some other supporting norms and beliefs — the belief that no one has all the answers (even managers) and that cooperation for the good of the whole program was more important than the embarrassment of some individuals because their part of the work was not going well at the time. In other words, the Epsilon team was aiming to create a culture very different from the one that they had experienced over many years at AutoCo. In the new learning organization culture, managers expected engineers to make their own decisions (instead of demanding to control them) and cross-functional collaboration was expected and rewarded. These insights were developed first among the core learning team over eight months of regular meetings.

Several learning labs were held, eventually involving about one quarter of the entire staff, and many briefings and discussions were held with all of them. Much of the focus was on changing the norms of communication. The learning labs included various experiential methods. What made the biggest impact on employees, though, was seeing senior Epsilon managers actually change their own behavior. They became less authoritarian and more open to other viewpoints, and when engineers reported a serious problem delaying their work, senior managers made sure that they got help and did not suffer for their honesty.

The changed work process and culture was successful on the bottom line. Launch of the new model went smoothly and on time (as intended) instead of the usual last-minute panic and pandemonium — an unheard of event in the recent history of this very large company. The project was also well under budget, saving some $60 million in re-tooling costs. Customer reaction and various

quality measures on the new vehicle were also well above previous levels. In three years — a short time for serious change in organizational culture — this program achieved impressive strides towards becoming a learning organization.

Note: The two change leaders, who were also the two senior executives of the Epsilon car program, Fred Simon and Nick Zeniuk, left the company shortly after the Epsilon launch to become consultants in this field. Subsequently, they were asked to assist the EPA New England Office with their initiative, which they did over some five years, through learning labs and continuing consultation with the main leaders. When the partnership between SoL and the Committee for High Performing Federal Agencies began, they became the main consultants to each of those projects.

A Learning-Based Change Model

In the previous section, we summarized the main differences between the old model with which today's generation of managers grew up, and which they took for granted, and the new model, which increasingly seems to have answers to the shortcomings we find in our organizations. Making changes in the direction of the learning organization is a huge challenge, but it has begun, including some of the Reinventing Government change initiatives.

On a much smaller scale, the partnership between the Society for Organizational Learning and five federal agencies has directly taken up this challenge of moving to the new model. Senior managers who are also natural leaders for such change initiatives were sought out and supported in preparing themselves for their new role. Outside experts were brought in who had prior experience in leading similar change initiatives and in training and coaching change leaders. For the most part, though, the leaders of these government change initiatives would have to learn their new roles in the same way that their predecessors had learned — not in the classroom but in the learning lab and on the job, experimenting in how to apply the new principles and tools, and making mistakes along with their colleagues. Leadership and learning are intimately related in the new model of organizational management and change — "the learning organization."

Having defined the learning organization, the new model or ideal, we must now define the change process that is required to move in that direction. This will be called the "Learning-Based Change Model," which differs in some important ways from the traditional or mainstream model of organizational change. We shall highlight some of these differences before we present a checklist of the major steps involved in applying the Learning-Based Change Model, based on the principles of the learning organization.

In its simplest terms, the Learning-Based Change Model relies on the approach of introducing the germs of new ideas, then nurturing and protecting them while they grow stronger, propelled largely by their intrinsic appeal. It is a model of change that relies as much as possible on the power of the grass roots. The traditional model, by contrast, relies on the "leader on the white horse" setting direction and impetus from the top. A more systematic breakdown into two columns can be seen in Figure 2.

Key Success Factors for the Learning-Based Change Model

What is actually involved in cultivating a learning organization, following the learning-based change model? The following checklist highlights some of the key building blocks needed in order to be successful in that challenging undertaking. If the first section aroused or rekindled the reader's interest to the point of asking, "What specifically is involved

Figure 2

Traditional Change Model	Learning-Based Change Model
Change is *pushed* from the top level.	Change bubbles up from mid-levels and grass roots.
Change program presents a full set of *answers* (formula).	Change approach offers some key answers plus opportunity to *learn together* the rest of what is needed.
"Here's my (top level) vision ... This is how we shall do it."	"Here's my (top level) vision ... How does this connect to what is important to you? How will you contribute to this vision?"
Change behavior through changing policies and reward systems.	Develop new *thinking*, which will shape new behavior.
Exhort, encourage, push, threaten.	Put down roots, feed them, let them spread.
Urgency to show clear, tangible results.	Emphasis on building a foundation for *sustained* change and improvement.
Setting a tough mandate and deadline (from the top).	Work on *several local* level areas of improvement and what arises.

in this?" here is a brief answer. It is based on the experience of a dozen change projects guided by the ideas of the learning organization, plus the experience of other change experts, two approaches which agree in some areas and not in others.

Since this report is designed for public managers and others with a practical interest in the subject, not for scholars, we shall not attend to these differences, but go straight to a combined checklist of key factors related to success. We do not promise success if they are followed but we confidently predict problems if careful attention is not paid to all of them.

The Change Model Checklist

Each of the items on the checklist will be described briefly. This explanation offers a very "applied" version of the learning-based theory of change, but you will note at one point where I borrow carefully from the traditional (mainstream) theory in order to

fill in a weakness in the learning-based theory as we have known it. The goal of both change theories might seem similar — to move closer to the ideal of the learning organization — but only the learning-based theory makes the change in a way that really leads to a strong learning organization.

PHASE ONE: Getting Ready

First requirement: Leaders who want to do this
No factor is more important than the sincere commitment of the leaders to this change effort. They must be volunteers; it is not enough to be a "good soldier" leading this because you were assigned by the boss. The ideal leader for a learning-based change project does not wait to be assigned but creates the assignment for him/herself and then seeks a senior sponsor or champion. In terms of position in the organization, the "ideal leader" is not one person but a coalition of three individuals: (1) one is in a line (rather than staff) management position, (2) one is an internal consultant or networker (e.g.,

someone in human resource development (HRD), and (3) one is a senior level sponsor. If you, the reader, fit one of these standards, you may nominate yourself for the leadership role. Just be sure that you also find the other two partners you need.

Example: In the partnership between SoL and the Committee for High-Performing Federal Agencies, the Committee played the role of seeking out potential leadership candidates in several agencies, line leaders (mostly from an office of around 100 staff) who would welcome this opportunity and challenge.

Help leaders build skills, understanding, and commitment: find advisors, coaches, or consultants
This is the special responsibility of the internal consultant (HRD, staff position), the second member of the leadership group — in the sense that this person has some knowledge of change management and good access to other resources for training, coaching, and consulting. Leading change and creating change together with other people is extremely demanding in terms of skills and in terms of character. Some people start out with more natural aptitude than others and some pick up related "management development" gains in this area during their careers. But few (even the most fortunate) would choose to jump unprepared into this role if there were a chance to prepare. SoL's experience has been that several days spent preparing themselves off-site with other leaders who are approaching such a change venture can be very valuable. This was in fact provided to the volunteer leaders through the Society for Organization Learning's core competencies course.

Establish senior level support
The senior sponsor (or "champion") is the third essential member of the leadership team. This person's main function is to give legitimacy to the initiative, in case it should be challenged by others, even at senior levels. So it is important that the sponsor understands and accepts the rationale for the initiative and the theory of change. The sponsor's contact with the change leaders can be quite infrequent, unless this is the leader's direct boss. Sometimes the sponsor is the first to get the idea of the change initiative and encourages the others; sometimes the line manager is the first one; sometimes it is the HRD internal consultant.

An Implementation Checklist

PHASE ONE: Getting Ready

- Find leaders who want to do this (first requirement)

- Help leaders build skills, understanding, and commitment: find advisors, coaches, or consultants

- Establish senior level support

- Engage others who want to do this ("partners")

- Have partners get to know each other

- Form a core learning/leadership group

PHASE TWO: The Pilot Project

- Select pilot project, ensuring alignment with the strategic direction of the parent organization

- Implement pilot project and initial goals

  – Check out assumptions and "mental models"

  – Identify systemic issues

- Assess your progress frequently, both results and process

- Help all members build their skills, understanding, and commitment

PHASE THREE: Building on Initial Learning

- Make the necessary changes to structures, policies

- Build more capacity

- Keep the neighbors (and boss) informed

- Renew the vision and feed the passion behind the effort for change

- Make and keep contact with other groups making similar change efforts, create a mutual learning support system

Example: In our case at an EPA Regional Office the initiative suffered greatly because the senior sponsor (who was the regional administrator) and the change leader did not have a good shared understanding of what would be required to make the change work. They agreed on the grand vision of the change but not on how it would be managed and how the active resistance of some other managers would be handled. As a result, the initiative was more limited in its success until the regional administrator left; and the burden of personal stress was much greater than necessary.

Engage others who want to do this ("partners")
All change management models emphasize the need for the leader to present a clear and compelling vision for the change needed — why it is necessary, what the future state will be like, and how they can get there. *Traditional* change models expect the leader to push hard for all employees to follow, to adopt the same vision, and to act accordingly, offering rewards for those who do. However, the *learning-based* change model seeks to get as much mileage as possible out of the voluntary support of those who find this new vision genuinely attractive (even though it may be a small proportion).

These small groups of enthusiasts will encourage each other; their commitment will lead to some early creative efforts and successes. These start a reinforcing cycle or positive growth loop, which may attract other volunteers. The leaders allow others to *participate* in developing and shaping the initiative. It is *not* a top-down, pre-ordained program. Although this way may take longer to get up steam, it seems to have more lasting power to keep on trucking over the long haul, whereas top-down initiatives are more vulnerable to collapse as soon as the leader's full attention waivers.

Early adopters of the learning organization concept are low-key evangelists, always willing to talk about their ideas and ready to invite colleagues who are interested to attend learning labs or other meetings where they can see more of what it is about.

Have partners get to know each other
Not only do the initial group of change leaders and supporters work together in a collaborative, participative way, but they get to know each other as

individuals. Our experience indicates that people learn more and work more creatively when they give up trying to leave "personal stuff" at home and are able to "be fully present" in the work group. Whereas the old model of organization would strive for a complete separation between the official role and the private life of the office-holder, the learning organization prefers that workers and managers acknowledge their private lives, interests, and values, while still being held to the usual standards of performance and fairness. Research shows that organizations in fact get better results when they give consideration to the personal lives of employees [Bailyn, 1997].

Form a core learning/leadership group
This is a very important part of the entire learning-based change leadership process. It is where the founders get together and develop their shared vision, which guides the change initiative. Since they are working with a new model involving new concepts, they need to experiment with them. They are learning about each other as individuals and how they each think, building trust and shared commitment. All these activities depend on unusually strong skills at conversation, which participants and change leaders must continue to develop.

At the beginning (before the pilot project), the core group of change leaders and fellow enthusiasts will probably be small enough (say 4 to 10) to function with everyone participating in all discussions. Later, during and after the pilot, the numbers of people and groups involved grow larger and a steering group may become useful.

- Leaders need support and feedback from trusted colleagues and reflective partners.

- They need to model how to be good learners, acknowledging what they do not know, being willing to risk making mistakes, and learning from those mistakes.

- The learning process within this group sets a pattern that can spread through their followers to "infect" wider areas of the organization.

Example: In the case of the Office of Special Education Programs (OSEP) in the Department of Education we see a clear example of such a core group. Formed around Patty Guard (the senior

career civil servant) is a group of four (including herself and two of the three next-level managers (her direct reports), plus their in-house HRD consultant). This group is part of the OSEP management team. Core group members went through the SoL orientation and training. They meet frequently to plan the work of the office and the organizational learning activities, and they meet following many of these activities to de-brief.

PHASE TWO: The Pilot Project

Select a pilot project, ensuring alignment with the strategic direction of the parent organization

A major outcome or culmination of the core learning group's initial gestation period is to select a pilot project in which it will apply the new approach to change and improvement. The kind of *goal statement* needed for the pilot project involves two things: (1) some improvement in an area that is important to the parent organization, and (2) to be achieved through improvements to the basic business processes involved. This alignment of the process improvement with strategic goals of the parent organization is crucial, though sometimes not receiving sufficient attention. (This is an area where the learning-based approach can learn something important from the mainstream.) Having established that we are pointed in the right direction, the next item looks at the implementation of the project itself.

Implement pilot project and initial goals

Check out assumptions and "mental models"

Pilot projects typically have goals requiring major improvements, more like 40 percent than 10 percent gain, the kind that cannot be achieved just by working harder or by other incremental effort, but by requiring a different approach, a different way of thinking about how the work is done. The assumptions (usually unspoken) that workers (including managers) make in the workplace are brought to the surface and examined by them in reflective conversations. In this way, the mental models that people tacitly use in thinking about the program, its purpose and methods, its customers and how they are approached and treated, its suppliers, etc., are all reviewed and tested for their validity. Alternative assumptions are considered and may become the basis for a new approach, promising major improve-

ments. An example of this can be seen in the Office of Special Education case. (See "The Power of Reassessing One's Mental Models," p. 19.)

Identify systemic issues

The causes of problems are not always obvious, since events can have multiple causes and multiple consequences, and some of the consequences can be delayed and unnoticed. Some of these unintended and unnoticed consequences can loop around and bite us in unexpected places. The usual method of making a list of causal factors, then tackling them one at a time, sometimes fails to fix the problem. A series of "solutions" that each worked for only a short time may be an indication that this problem needs stronger (more systematic) medicine. As participants in a problem situation, we must listen carefully to each others' "stories" from different roles, as we sort out the specific consequences of things that happened and map them. Then we construct a systemic view from which new insights and solutions can be derived. In a learning organization there is careful communication and analysis using systems thinking.

Often, dedicated work is entirely focused on "our" piece of the organization, but not on the purpose of the whole — sometimes to the detriment of the whole — perhaps without our even realizing what we do. It takes a little systems thinking to gain perspective. The EPA spent many years pursuing polluters to impose penalties. After 20 years, many of the worst offenders were dealt with, and the general public learned from the example of these prosecutions. Then some EPA strategists, taking a systems view, began to ask whether more could be achieved to stop pollution and protect the environment by negotiating broader agreements with certain industries instead of enforcing just what the law provided for. This went against the inclination of the enforcement division, since it had always been judged on how many court actions it won. This shift in perspective is at the heart of the EPA change case.

Assess your progress frequently, both results and process

One of the defining marks of the learning organization is that members frequently check on "how are we doing?" This usually falls into two areas:

The Power of Reassessing One's Mental Models

At the time they attended the first learning lab, the staff of the State Monitoring Division in the Department of Education's Office of Special Education (OSEP) was struggling unsuccessfully with a very sticky issue concerning the state reports, which are at the heart of that division's work. What the division does, in simple terms, is to go out to the various states and monitor their delivery of special education services. They come back from each monitoring visit with "tons of information." The problem has been how to organize that information effectively (and efficiently) into a state report, which can help state officials to move into corrective action or improvement planning. The issue of efficiency was very much weighing on the minds of the staff at the time of the two-day learning lab, because the division was seriously behind schedule in producing these reports and the backlog was getting worse all the time.

With the new energy, skills in organizational learning, and insights that they brought back from that learning lab, staff spent "a relatively short amount of time" looking for (and finding) a new and better approach to the situation. They considered *their vision* for how the state monitoring process and reports to the states should ideally be functioning. They also spent some time examining their *mental models* about the work of the division: the assumptions they made about the state agencies, their motivation, and how they believed the state staff viewed the monitoring process. This produced many pages of chart paper, full of notes on mental models around this issue. From April to August of 1999 small groups of division staff met and came up with a strategy for solving the backlog of reports.

They went "outside the box" for a solution. What led them to the solution was to question the real purpose of the reports. The breakthrough came when they realized that the reports were not an end in themselves, but a means to improve the quality and effectiveness of services to students with disabilities. By focussing on the *results* that mattered, on the true *purpose* of their program, they were able to view the problem in a totally different light. Once the problem was reframed, a solution that was previously inconceivable now became obvious. Stated with a little irony, the solution to having *too many* reports to produce was to produce *fewer* reports — because they saw that the reports per se did not really matter. What mattered was the corrective action that the reports were supposed to lead to — and there were more direct ways to get there. (This is explained more fully in the OSEP case in the Case Studies.)

It takes courage to go forward with such a solution. "It was pretty radical thinking for us," said Ruth Ryder, director of the division. "For 20 years we've been going out, gathering data, doing reports, developing corrective action plans, and going back to states four or five years later and doing the same thing — and a lot of times coming up with the same problems in the states." New thinking always requires hard adjustments — in this case from those who might think that it means that staff have been wasting much of their energy for all those years, carrying an unnecessary load. Another thought among some staff was concern that the new approach might appear as if the agency were "backing off" from its responsibility to enforce the law. For some groups, that discomfort would be enough to squash the proposed innovation, if it should ever be suggested. This highlights the fact that innovation requires more than just smart creative thinking. It also requires the strong personal commitment of members to the mission and values of the organization (enhanced by the vision discussion in this case) and to doing the right thing, what is best for the "customers" (the disabled children) — even if it causes some discomfort to the staff. These staffers did care more about a better solution to the problem, regardless of their own discomfort, and they are on their way to creating a learning organization in the Office of Special Education Programs.

(1) how do we feel about the way we are working together? (work process), as well as (2) how well are we progressing towards our major goal to improve the standard of what we do for our customers? (performance results).

Progress on performance goals must be measured. The host organization usually has its own measures, but the work group may supplement these with its own. These internal measures, which do not have to be shared outside the work group, may be "fuzzy," broad, and subjective — as applied to both the output goals and work process — provided that the group members are ruthlessly honest with each other. This is possible if a culture of trust has really been developed, along with a fierce commitment to the performance goals. Where this exists, the fuzzy, gut feelings of members about how they are progressing on a tough, complex task may be more valid than the precise but narrow official measurements.

Help all members build up their skills, understanding, and commitment

This is the special responsibility of the second member of the leadership group, the internal human resource development consultant. This person should have some knowledge of change management and ready access to other sources for training, coaching, and consulting. This person needs to know a variety of qualified people who can be trusted and who know and accept your approach as important.

Reviewing Progress in Process Improvement

A meeting involving seven "learning leaders" and senior executives of the Office of Surveillance and Biometrics (OSB) in the Food and Drug Administration's (FDA) Center for Devices and Radiologic Health (CDRH) took place in March 2000 to review the progress of the organizational learning initiative. The meeting was called by Larry Kessler, director of OSB. Among the examples narrated of areas where the new learning had been applied were the following:

> I have noticed a lot more meetings that I've attended where we tend to behave differently — using the ladder of inference* and trying not to climb up too far, keeping in mind our behavior and how it reflects on others and how people can react to that.

> I see the use of the ladder* [of inference] on a day-to-day basis, often in a light-hearted manner.

> We seem to be more careful than we were before about climbing the ladder of inference. An example is talking about exploring other people's perspectives — I think that's something we didn't do *nearly* as well three years ago.

> More recently [my division has] begun to think about how we can use SoL ideas to address how our partnership, our relationship is with this other office [which is our major customer…]

According to this discussion, the main changes at OSB since their involvement in the SoL partnership are not so much different products, procedures, or policies (at least not so far) but "how we deal with our colleagues."

> One of our senior staff said to me, "I think SoL is the way we do business every day, and I try to have my division work like this anyway, and we try to keep these kinds of principles living and growing in the way we do business."

As Kessler summarized it: "This [organizational learning] has become part of our culture here."

---

* The "ladder of inference" is a learning tool or metaphor designed to increase our awareness of the degree to which we go beyond the hard facts in everyday perceptions and judgments. At the bottom of the "ladder" we stick close to verifiable facts with minimal interpretations. At the top of the ladder we use major assumptions or biases in order to draw interesting but speculative conclusions. Both can be useful — at times — but it can be valuable to be aware of when we are betting on a major assumption in case it is not correct for this instance.

Learning from peers and learning in the actual context of work ("adult learning" or "experiential learning") are to be encouraged. "Learning labs" that present concepts and tools of change management in the context of work issues — and that support learners while they apply the new learning — have been found to be an effective approach. Coaching takes place in the labs and during normal work time. It is done initially by internal consultants and then, increasingly, by their line managers, colleagues, and supervisors. As the pilot project expands, the organization must also expand its investment in learning labs and on-the-job coaching for the new roles that the change initiative is introducing.

Example: In the OSB case, the change leaders decided to create a full-time detail position, with 90-day rotations, for a staff member to support their organizational learning initiative and to help it take root. (So far this approach is unique among the partnership projects). The first appointee was a branch chief within the office, who left those responsibilities for three months while she served on this detail. She estimated that during the detail she spoke to about 80 percent of all staff members. Some approached her, asking for help, but she also asked to be invited into some regular meetings to speak to work groups. (See "Apply Organizational Learning.")

PHASE THREE: Building on Initial Learning

Make the necessary changes to structures, policies
Organizations have many structures that guide the behavior of their members along certain paths and away from others simply by making it easier to get one kind of resource rather than another, under certain conditions rather than others. In addition to all these indirect structures, there are also direct reward systems, especially those based on performance appraisal.

Example: In the case of the EPA Regional Office, where the change initiative was centered on integrating the work of separate environmental programs around common *results* (cleaner air and water) in place of the old *program activity* goals, the change leaders realized that they should incorporate these new expectations directly into the performance goals of senior managers and so on down

---

Apply Organizational Learning

In an interview, Mary Brady, the first person detailed to this position, stated: "I felt people needed to bite off a little at a time. People in the government don't handle change well. I've been in government 16 years, and there is a lot of this type of training — one more thing the government is going to talk about and not act on. But I also felt they would be overwhelmed.

"The role I played was to remind people of what they learned in July. I started in November and I asked: What can we succeed in right away that will show something tangible? What can we work on that will be individual and not have to add to their daily activities? So I thought of the mental models. Everyone seemed to enjoy that part the best. And what I did was focus on how we behave, how we react to others, how we're thinking — just being more cognizant of that on a daily basis. It might take six to eight weeks just for this part. I put them through a dog-and-pony show at all meetings and I worked with individuals who requested it. It was all voluntary. You don't need to comply, but you need to be aware of it when talking to others. We looked at the ladder of inference, mental models, [left-hand] columns*. [My aim was to get them] to practice in meetings, in and outside the organization, and see how it feels to be using this. For the most part, everyone thought it was a good idea learning how to deal with difficult people, keeping your left-hand column intact, how can you deal with others? … I ended up talking to virtually the whole office — 80 out of 100…"

---

* The "left-hand column" exercise asks people to write down a conversation they were dissatisfied with. In the right-hand column they write what each person said; in the left- hand column they write what they themselves were thinking or feeling but did not say. *This exercise was developed by Chris Argyris. [1985; 1996, first published 1978].*

the management hierarchy. However, it is important to realize (as they did) that this kind of structural change only works when combined with fostering and teaching the new thinking that goes with it. This requires engaging managers in dialogue about how they can rethink their work plan, focussing on the new priorities. This cannot simply be imposed from above. Then each manager who has redesigned his/her own performance goals must hold that dialogue with his/her own reports. Only if there is meaningful dialogue and participation at every level can the change work. As a last resort, those managers who refuse or fail to comply may have to be removed or transferred; the success of the change, however, depends on how many can be engaged in the new way of thinking and express it through their performance goals.

Where dysfunctional policies and structures of the organization itself form barriers to improved performance based on a systematic analysis of the root causes of problems, these should be changed. Often this is much harder than it sounds, because organization-wide policies are involved. Now we discover how much investment the highest levels of management have in the goal of becoming a learning organization. In large organizations, top managers have little awareness of the change initiative, off in a corner of one of their divisions. The influence of the senior sponsor (and how close this person is to the top levels) can be significant here. Many change leaders will learn that it is much easier if they confine their ambitions to changes that can be managed within their own area, without seeking collaboration from other parts of the larger body, i.e., without causing that entity to change itself. Initiatives that were sponsored from the top with the intention of instigating wide change (quite rare creatures) will be treated differently.

Build more capacity
This is a continuation and expansion of the item in phase two named "help all members build their skills, understanding, and commitment." It is the special contribution of the internal human resource development consultant, who should have ready access to sources for training, coaching, and consulting. As the pilot project expands, the organization must also expand its investment in learning labs and on-the-job coaching for the new roles that

the change initiative is introducing. This is needed both for the early-adopter, the enthusiastic group as it expands, and also for the larger group of employees who are complying like "good soldiers" due to peer pressure, the urging of top managers, and their sense that "this is the way things are going around here" — although they don't (so far) feel the depth of conviction of the enthusiasts' group.

Keep the neighbors (and boss) informed
This is not just common sense and good manners but can be a matter of life and death for a new initiative. The change initiative introduces some very different ideas and role behavior. Outsiders who see or hear about things that are happening due to the initiative, without understanding the context and reason, could get a very wrong impression.

Example: In the Epsilon new car project there was a big effort to get engineers to report right away when they anticipated problems, so that all could get involved in resolving them and so that others would not count on a component staying unchanged when there was a known problem with it. This openness had never happened before, due to lack of trust. Building up trust was a central goal for the Epsilon program managers, and higher numbers of reported problems were an indicator (to them) of increased trust. Seeing more problems in the open than previously (before the start of the initiative) was interpreted within the initiative as a good sign. But to their boss, who had paid little attention to the nature of the change initiative and resisted their efforts to keep him informed, the large number of problems was very distressing, because (to him) it meant that the program was "out of control." That is what such a number traditionally meant in the old culture.

The new behavior in the change project (e.g., workers sharing duties in new ways that they devised and acting more autonomously by not checking every move with a supervisor) can also seem threatening to those still accustomed to the old ways. Just the enthusiasm and esprit de corps of the pioneers can seem like a "cult" to those who do not know their plan and purpose. This "public education" for neighbors and bosses also helps the new knowledge of other ways of management become available to other parts of the organization.

The EPA New England Initiative: Changing thinking and organizational structures

*To get the best results from an organizational change it is usually necessary for participants to change their **thinking** (purpose and mental models) at the same time as organizational **structures** are changed.*

In the first year of the EPA New England initiative, the strategy was designed to be vision driven. After engaging with the vision, staff members were expected to design the modified structures and policies that would be needed to create an integrated, results-oriented environmental system. However, powerful distractors got in the way and not enough managers became sufficiently engaged in this process to the point where they felt joint ownership of the vision. In one major area, however, the initiative went ahead very much according to plan. This was in the newly created "state offices," which manage relations between the EPA and each of the states (to provide the state environmental agencies with "one-window shopping"). These "state offices" embodied fairly well what the new strategy and vision called for. As for the rest of the regional office, however, progress in getting collaboration and integration of efforts across units was quite limited.

In the third year of this change initiative a group of change leaders/senior executives who were looking to accelerate the change process decided to use the staff performance management system (PMS) as a tool for this purpose. PMS had existed on paper for several years but was ineffective. It was an empty, required ritual. In the first year of the change initiative, managers were, in effect, *invited* to participate in conversations about the new vision and mental models, but they were not pushed to set performance goals for their units and themselves in line with the new thinking. Now, in the third year, managers and their reports were *expected* to talk together about the goals for their units and themselves, and then to set goals appropriate to the new thinking. Training was provided for all levels of staff to help them with this.

In the new (third year) strategy it was considered essential that every manager have good conversations about which unit and personal performance goals would fit with the agency's new vision of integration around environmental results. Each top manager would have this conversation with his/her direct reports, and therefore every manager and employee would eventually have such a conversation with his/her boss. In the new strategy staff members were told that they and their supervisors would be evaluated both on the way these goals were written (now) and on how well they were met (later). Thus the PMS was intended to provide a structure for shaping and supporting the behavior and thinking of staff (at all levels) who were not opposed to the new direction (vision) but were not going to enact it without more help. For staff who were opposed to moving in this direction, PMS might be experienced as a coercive structure.

Renew the vision, and feed the passion behind the effort for change

This item is a reminder that basic to the learning-based approach is the notion that a major energy source for the change process is the personal vision and deeply felt aspirations of individuals, the goals and values they really care about. In addition to the importance of skill development to meet these new challenges, there is also a need for periodic reminders to participants about why they are involved in this change effort, invoking symbols that rekindle the passion. Examples include celebrating recent successes, commemorating old ones, retelling the stories of early struggles, and hearing

"It's different here. You don't understand."

Environments That Are Unfavorable to the New Model

The following factors impact the ability to implement change. Use this list either to select the more promising locales for change initiatives and/or use it to prepare the ground, developing a more favorable environment for learning-based change initiatives.

When an organization has the following factors operating at a high level, it will be harder to improve organizational learning and to build more effective learning organizations — whether it is in the public or private sectors. It is often assumed that these negative factors generally characterize the public sector in contrast to the business sector, but we do not need to make that assumption. (In fact, those who are familiar with the inner workings of *Fortune* 500 corporations will instantly recognize most of the pathologies on this list.) The point is, it will be harder to promote learning-based change and to move towards the learning organization in situations where the following conditions exist:

- The work environment makes use of *blaming* when mistakes happen — especially when the blaming is personal, punitive, and public. All that is bad enough *inside* the organization. It's 10 times worse when your mistakes are considered fair game for the mass media and may be featured in provocative headlines or on the 6 p.m. news.

- Credits for successes are not balanced against a failure — this leads to a risk-averse culture.

- Stakeholders have the power to intervene and micromanage ("Congressman X's office called about … ").

- Change-resistant workers feel that they can wait out (and outwit) the reformist leaders. This is a specific reason for not depending too much on top-level (politically appointed) agency executives as change leaders, because their tenure is short. While they are indispensable for certain kinds of change — e.g., where legislation must be changed — the career service officials can play a broader role as change leaders.

- Dysfunctional structures are locked in by legislation or other hard-to-change means. This is where the political leverage of the political appointee can be valuable in getting the legislative changes. Most effective is an alliance between senior career officials, who may do the groundwork, both in research and in the preparation of staff for the changes in operational models (changes in thinking) over several years prior to the arrival of the new appointee. (This happened, for example, in the OSEP case.)

- Senior managers *micromanage* or permit stakeholders to interfere in matters of administration through them.

- Poor performers (at any level of the organization) remain long-term without effective evaluation, help, or sanction. This creates a double drag effect on the morale of colleagues and on the performance of the unit.

- *Accountability is weak* and staff members feel they are invulnerable. Change comes as a severe threat to this situation.

- The workforce feels neglected and/or abused. Curiously, this may overlap with the previous two situations.

- Workers consider themselves more expert and/or more dedicated than their bosses.

- The vision of workers is limited to their own job description (*"it's not my job"*), with no regard for the purpose or mission of the whole program, and no concern for those who depend on its outputs (their "customers").

- *Inadequate feedback loops and information* systems leave staff "flying blind."

- A significant part of the workforce has a different vision for the agency from the official one. (This is a serious situation, even more than the others listed here.)

- The *intangibility of the work* leaves workers in disagreement about the nature of their customers, about what they do, and about what is or is not effective, with no ready evidence on which they could agree to settle the matter.

- The customers, those who depend on the outputs of the agency, have no way to reward or penalize the agency based on how well it meets or does not meet their needs. This is a major difference between traditional government services and the world of the marketplace. And this is why there has been so much interest in privatizing public services, making them compete and risking the loss of their franchise if they fail. This approach may work for service programs but would not work the same way for regulatory or security functions.

- The payer (third party) is different from the customer or beneficiary. In effect, there are two customers/stakeholders with possibly different interests, feedback loops, etc.

- Key players remain in position only a short time, often replaced by someone holding quite different assumptions, principles, and policies (*discontinuity of key players and policy*). This occurs in the electoral system of political appointees at the top levels of government agencies, with a democratic rationale, as the larger political system adjusts to a shift in voter preferences. With increasing volatility in the business world, there may be an element of this discontinuity of key players with or without a shift in policy.

These 17 factors unfavorable to change are hard to avoid — especially (but not exclusively) in the public sector. Perhaps the main value of the list is to enable the prospective change leader to anticipate the nature of the barriers to be faced.

from people who represent personal and poignant examples of the need to which the work of the organization is dedicated. From a shared vision like this, the wells of positive motivation run very deep and strong.

Make and keep contact with other groups making similar change efforts, create a mutual learning support system

Change leadership in this model is all about learning together to do things one has never done before. It involves making mistakes and learning from them. It involves recognizing the assumptions that invisibly guide our behavior and choices, and sometimes revising them. That reflection occurs both individually and jointly, sometimes in groups and sometimes between two individuals. It is a natural extension of learning within each group and change initiative to include learning across several initiatives. It is useful to share learnings and best practices, and to get advice or help with difficult problems. The perspective of the outsider can be valuable in spotting problems that those on the inside couldn't see.

Example: Among the five federal government agencies participating in the partnership with SoL there is a conference call every three months involving the two main leaders, several members of the High-Performing Federal Agencies Committee, SoL staff, and consultants. There have also been two larger, longer, face-to-face meetings in less than two years. These meetings share encouragement and best practices.

Case Studies

The Partnership Between the Society for Organizational Learning and the High-Performing Federal Agencies Committee

The idea of trying a learning-based approach in the federal government arose out of conversations between the Society for Organizational Learning and the High-Performing Federal Agencies Committee of the Inter-agency Human Resource Development Council (HRDC). This idea built on the pioneering efforts begun in 1995 at the Environmental Protection Agency's New England Regional Office in its partnership with SoL and several of its consultant members. Georgie Bishop, one of the leaders of the New England EPA initiative, was a member of the High-Performing Federal Agencies Committee and shared with her colleagues some of their early experiences. This aroused their interest and led in 1998 to the start of a partnership between the committee and SoL.

The committee sought out and selected other government executives interested in becoming involved with the partnership and developing their own initiatives. These volunteers, senior executives from four different agencies, with the consent of their superiors, joined the partnership. They attended a five-day introduction course in the "core competencies" of the learning organization, along with one or two staff from their respective units, all of them carefully selected. At the "core course" they met colleagues from many other organizations

— mainly non-governmental — on a similar career journey. Upon their return, this group planned with SoL consultants an in-house workshop ("learning lab") to introduce some of their own staff to the new approach. Each unit then planned, with the help of its consultants, how to take the initiative forward. Four times during the first year several leaders from each of the four projects talked together, three times via conference call and once at an all-day in-person meeting. Other times this networking group might meet when invited to an initiative-related event at one of the participating agencies. For example, the Department of Education invited them when they hosted a presentation by the two EPA leaders to their own staff in June 1999. Members of the networking group also would attend meetings at SoL. In fact, the SoL annual meetings in 1999 and 2000 included presentations by leaders of government projects about the work being done in the federal government.

The role of the Committee for High-Performing Federal Agencies (HPFA) was crucial in three areas: 1) in sponsoring and legitimating the idea of this experimental partnership from the outset, which included the recruitment of participants; 2) in facilitating the contracting process between SoL and the federal Office of Personnel Management; and 3) in finding suitable pilot agencies and appropriate leaders within the agencies to participate.

In their individual HRD roles, several committee members have also taken part in facilitating learning laboratories and providing ongoing on-site consulta-

tion with the application of the concepts and tools in the specific agencies. The quarterly conversations among project leaders were planned and sponsored by the HPFA Committee. The leadership role of the Committee on High Performing Federal Agencies was recognized by their peers who selected them to receive the Distinguished Service Award "For Service to the Federal HRDC Community" from the Training Officers Conference in June 1999.

Four pilot projects for the first year of the contract were started within the following agencies:

- National Aeronautics and Space Agency (NASA)

- Department of Veterans Affairs: Vocational Rehabilitation and Employment (VRE)

- Department of Education: Office of Special Education Programs (OSEP)

- Food and Drug Administration: Center for Devices and Radiological Health, Office for Surveillance and Biometrics (OSB)

Historically, the first project was undertaken at the Environmental Protection Agency, New England Regional Office, which began its own partnership with SoL in 1995. The leaders of that project, Georgie Bishop and David Fierra, are considered valued mentors within the group and are regular participants in meetings of the partnership. The last case study in this report focuses on the work done at the EPA. The first two case studies highlight initiatives at OSEP and OSB.

The recruitment of government executives to be "learning leaders" for these initiatives (through the HPFA Committee) represents the first of three key elements required for introducing organizational learning initiatives into the federal government. The second key element is the availability of internal human resource development consultants who could coach and support the projects; and the third is the outside expertise and support brought in by SoL supporting staff and SoL-affiliated consultant-trainers (primarily Fred Simon and Nick Zeniuk).

Each of the four agencies taking part in this partnership followed its own timeline, but the sequence of major steps was the same: after attending the introductory course in the Boston area, the learning

leaders and internal HRD consultants next scheduled a "learning lab" for a group of their staff members, to be presented by outside consultant-trainers recommended by SoL. This learning lab, presented locally for some 25 to 40 staff members of each pilot agency, introduced them to some basic organizational learning methods in the context of a "practice field" where they could begin working out how to apply these methods to a selected challenge that they faced. Not only the learning leaders (executives) but also the staff and supervisors involved in these pilot initiatives were all volunteers — a basic principle of the SoL approach.

As we shall see in the case studies, participants learned to improve their effectiveness in communicating and working together. At NASA, for example, the human resources development staff (which was the host for one of the initiatives) noted that its widely dispersed membership was able to increase its productivity as a group, as a result of developing together a shared vision and strategy in the learning lab. At the Department of Education, the division responsible for monitoring state programs of special education and early intervention for children with disabilities was able to improve significantly its whole system for working with state agencies, based on rethinking some of its basic assumptions and mental models.

The informal assessment of the first two years' achievements, both by federal participants and SoL partners, is that much important progress has been made and that the beginnings of healthy roots have been put down. The SoL approach is to invest heavily upfront and to continue patiently, building up a healthy orchard to support extensive future harvests and growth. SoL's program manager for this partnership is Jeff Clanon.

Case Study: The Office of Special Education Programs (OSEP) in the U.S. Department of Education

Overview
This change initiative went through the steps outlined earlier. During phase one (getting ready) a core learning team was formed to lead the effort, headed by Patty Guard, deputy director of OSEP and senior career servant in OSEP, and included two of her

direct reports and an internal consultant. Their pilot project (phase two) turned out to be redesigning the work of the State Monitoring and Improvement Division. This project was led by Ruth Ryder, director of the division, with the rest of the core learning team staying in the background to act as her support group and reflective partners. The core learning (and leadership) team in OSEP then moved the initiative into phase three, expanding its scope from the pilot project in one division to a more complex project that cut across several divisions of OSEP. The impressive progress made by the pilot project encouraged the three-person leadership team to get more ambitious and take on a larger and more complex project that involved several segments of OSEP that needed to collaborate in new ways. The success of both phases gave credibility to the goal of making OSEP into more of a learning organization.

Phase One: Getting Ready
About one-third of OSEP staff (about 30 people) took part in a two-day learning lab run by two consultant-trainers from the Society for Organizational Learning, presented on-site at the agency, to introduce them to the basics of some tools of organizational learning. For three OSEP executives and their internal HRD consultant, their involvement began at least two months earlier when they attended the five-day "core competencies course" in Boston, along with other change leaders from a number of organizations. These three took the lead in planning the in-house learning lab and in OSEP's whole venture into organizational learning with its outside partners (consultants) from the Society for Organizational Learning. The four who attended the core competencies course became the core learning team for OSEP's learning-based change initiative: Patty Guard, two of her direct reports — Ruth Ryder and Lou Danielson — and their internal consultant, Bette Novak. From the start they had the support of the OSEP office director (a political appointee), and when he left the position, Guard took care to acquaint the new director with what they were doing, so that he too became a firm supporter of this change initiative.

Phase Two: Pilot Project in the State Monitoring and Improvement Planning Division
Immediately following the two-day learning lab in March, staff who had participated began to experi-

ment with applying the tools and concepts to their work. One group in particular found itself in a painful bind: They really wanted to put their new learning to use, but they faced a huge backlog of overdue reports on the state reviews for which they were responsible. They felt that they dare not take the time necessary to plan an organizational learning initiative. Yet they really felt the need to improve the way they managed the situation instead of continuing to push the boulder up the mountain.

They felt this dilemma acutely. But it was not long before they broke through "the wall" with a question about their mental models around the state monitoring process: How might they have caused themselves to be in this bind? And what would be another mental model for what they were trying to do that would somehow reduce this dreadful workload?

That proved to be the essence of the solution they found. It still took a lot of hard work, talking and thinking about the purpose of their program and the assumptions they made about their counterparts in the state agencies. The rhetoric of recent American political philosophy called on federal government to think of their state counterparts (and even the private sector) as "partners." But the long history of more adversarial roles between state and federal agencies (not to mention the government and private sector) carried a legacy of less trusting mental models, which supported a particular approach to monitoring, accountability, and reporting back to the states. What if they could truly adopt a partnership model? How could that change the monitoring and reporting process? And could that be less onerous to both sides, and perhaps more useful to the states and more beneficial to the real customers — the disabled children and their families? The "magic" of mental models work —the surfacing of tacit assumptions that invisibly guide people and reflecting on their implications — makes possible such significant breakthroughs in problem solving. This work is not unilateral, of course, for the partners also need to be involved in the discussions and to agree to the changes that emerge.

Under the leadership of Ruth Ryder, the Division of Monitoring and State Improvement Planning staff met weekly for several months, applying these tools to their "wicked problem" of how to manage the ever-increasing backlog of state reports. An innova-

tive solution was created, and the next steps for implementation are being developed. In this work they have used a variety of tools: mental models, shared vision and team learning, and advocacy, inquiry, and reflection. The staff was very enthusiastic about the process. The comment heard many times was that they felt they had "been given permission to think outside the box." This work has included the entire staff of the division, a significant number of whom did not participate in the learning labs.

Phase Two: Assessment

"We found that the Vision Deployment Matrix (VDM)[1] was a very structured and labor-intensive tool — not one that we would use for our day-to-day work, but one we could effectively use for larger projects such as the ECTA (Early Childhood Technical Assistance) work group," said Bette Novak, internal consultant. "The work group and learning leaders found that the VDM process and other organizational learning tools surfaced many complex and broad-based issues related to OSEP's role in providing technical assistance that may not have been identified without using this process. The major outstanding issues that needed additional attention included work with our sister federal agencies which also have programs for young children, including providing technical assistance, and work with our external customers and partners to develop a 'shared vision'."

Meeting with the supervisors, Guard remarked jokingly that in their current task they would again be using the VDM — "a tool that has become near and dear to our hearts" (laughter). "We seem to use it for everything around here. We are getting better at it all the time and we have learned a lot from using this tool."

---

[1] *The Vision Deployment Matrix (VDM) is a trademarked tool for organizational learning developed by Daniel H. Kim and Diane Cory. It was described by Kim in an article in* The Systems Thinker*, 1995, vol. 6, no. 1. The VDM provides change leaders and work groups with a powerful method of organizing the efforts of a change team, using their understanding of current reality and their aspirations for a different future, focusing on the gaps (and questions) between them, and on the actions they will take to narrow the gap. All that is repeated on five different levels of perspective, from events to patterns to systemic structures to mental models to vision. In total this yields a 5 x 6 matrix, though it is possible to work effectively in a subset of the whole.*

Some further assessment of the OSEP experience with the VDM tool was offered at a cross-agency meeting by Lou Danielson, another member of the three-person leadership team for OSEP and director of the Research to Practice Division, who was heavily involved in the ECTA task force, as well as all of the management team meetings. In his assessment, they were "extraordinarily compulsive" the first time they used the VDM; in every cell they pushed the discussion until they ran out of steam. On reflection, that was not necessary, since points that might be missed the first time can easily be added later without loss of effectiveness. Since then, they have learned to work much faster with the VDM: in one case achieving in four hours what they would earlier have taken four days to accomplish. (Researcher's comment: This does not necessarily represent a ten-fold increase in skill because the increased speed probably comes from their increased confidence and the realization that some of their earlier meticulousness was unnecessary.) Ruth Ryder noted (at the same meeting) that they had learned several things about using the VDM: to avoid spending time on discussions of "which box to do next?"; to avoid "wordsmithing" their phrases; to allocate one question per cell; and to use a time-clock to help them keep to a schedule. Although the VDM is a tool designed to foster thinking, not hasty decision-making and just "filling in the boxes," it is possible to be efficient and time-conscious about collective thinking — especially after some practice and with growing skill in the arts of thoughtful listening and dialogue.

Another feature of the VDM, noted by Danielson, is that it can be used effectively without much training — at least in some instances. He cited the example of one staff member who did not attend the learning lab but found herself in a project leadership role where the VDM had been suggested. With only an hour of instruction from a colleague and the benefit of reading the Daniel Kim article on the VDM used in the lab, Bonnie Jones proceeded to experiment with its use in her project group. The group responded positively to the way it helped them to think about their work and the resulting product.

Staff response to the introduction of organizational learning tools has been very positive. Lou Danielson observes that, for once, staff *do not complain* about the extra time that the application

of organizational learning tools requires. Another source of data comes from staff feedback collected from OSEP supervisors on how they felt about using the organizational learning tools to do the work of OSEP, including the ECTA task force led by Guard, Ryder, and Danielson. According to staff, the use of new tools changed their experience of the work process because it:

• Increased the feeling of inclusiveness

• Showed evidence of the collaboration and commitment of the three learning leaders to using the tools and concepts

• Engaged everyone in the conversations and decision-making process; it promoted creativity and out-of-the box thinking

• Helped large groups to get a common understanding of the complex area of technical assistance.

Phase Three: Building on the Initial Learning
The success of the State Monitoring and Improvement Planning Division pilot project was an inspiration to their colleagues in the other half of OSEP and encouraged two other formal initiatives, using the organizational learning tools. A third day of the learning lab (held in June 1999) provided the opportunity for staff to review the concepts of mental models and systems thinking and to apply them to work that cuts across all components of OSEP. The work in the learning lab focused on how OSEP currently does and could provide technical assistance and information dissemination in order to get useful research into practice. The Vision Deployment Matrix was introduced and applied more deeply by the management team. Subsequently, OSEP asked for volunteers to serve on a work group to develop a priority to fund a $4 million grant for technical assistance in the early childhood area. This work group used the VDM to consider the future of early childhood technical assistance. In addition, they used other organizational learning tools including dialogue, advocacy, inquiry, reflective thinking, mental models, and systems thinking in their work.

The Vision Deployment Matrix is one tool of organizational learning that has been very useful to OSEP. It looks like a planning tool, but the way it

works is different from conventional planning devices whose purpose is to get decisions made. Here the main purpose of the tool is to facilitate *collective thinking* (the formulating of vision, the surfacing of mental models, the analysis of systemic structures, and the alignment across these) that will lead to shared vision across the group, with shared strategies and goals and structures that are in alignment.

Conclusion: Overall Assessment
Results so far would include the following:

1) Reorientation and improvement of the state monitoring program (which represents at least half of the total OSEP workload and mission)

2) Design of a new Early Childhood Technical Assistance System by a task force representing many areas of OSEP

   (Note: Both of these items are considered "results" of the work in applying organizational learning methods, since they go significantly beyond "business as usual" both in their approach and in the extent of the challenge taken on.)

3) A significant increase in collaboration among the top three career executives in OSEP around the core work of the office.

Overall, these three changes represent an increase in the ability of OSEP staff to make improvements in the way they work. Beyond these specific changes, an enhanced capacity is being created for continuous improvement. Obviously, the evidence to support this hypothesis will have to be collected in the next few years. But it is important to state the hypothesis now, so that even the data at this early stage may be examined with this possibility in mind.

In addition to the self-assessment of key participants, which we have depended on mostly here, it can be useful to observe them in action, as I did during a three-hour meeting of the OSEP supervisors' team in May 2000. Thirteen OSEP supervisors were present at the meeting, which was led by Deputy Director Guard. The group worked in a very focused way. It started on time, with no latecomers. They used the Vision Deployment Matrix to address a new issue concerning the changing roles

of their support staff. Members were attentive throughout and highly focused on the work plan presented to them that was used to guide the meeting. There was humor and a lot of informal participation after the purpose and procedures had been explained by the leader, but there was an intense focus on the task throughout. Members did a lot of listening. Several times when different members were having trouble getting into the discussion, other members intervened tactfully to help them get a chance to speak. No one went off on tangents. At the cost of negotiating the break time down to barely 10 minutes, the agenda was covered. At the end of the meeting, which went 10 minutes overtime, the group did not protest when the leader asked for extra time for them to assess what they thought of the way they had worked together. That was done quickly and (to this observer) hurriedly, focusing on how the work was organized but not on the interpersonal dynamics.

The bottom line is that this group covered in three hours an amount of work that I estimate would typically take at least a full day. This led me to infer (incorrectly) that this group of 13 supervisors worked together on a regular basis. In fact, I was told it does not normally work together as a single group — though its two divisions and other subsets of the group each do so. In addition, it is very significant that its three senior leaders, the members of the core learning team, have learned a lot in the past two years about working closely together.

After the meeting I asked Patty Guard: "How much difference would I have seen in this group one, two years ago?" She answered that their involvement in the SoL partnership has "made a significant difference" in the way the three senior (career) leaders of OSEP work as a team on issues that cut across the organization. They work much more smoothly together, which has been remarked on by staff. They meet frequently to plan the work of the OSEP and the organizational learning activities, and they meet following these activities to debrief.

In a reflection on her personal experience of this work, Guard concluded: "My involvement in the SoL partnership has been one of the most challenging and rewarding professional growth experiences of my career. It is an outstanding opportunity for senior executive professional development."

Case Study: The Office for Surveillance and Biometrics (OSB) in the Center for Devices and Radiological Health (CDRH) of the Food and Drug Administration (FDA)

Overview

This case followed a fairly typical phase one (getting ready), but its phase two was not focused around one pilot project — not in the way it occurred at OSEP. While there was a pilot project, there was more emphasis on many, small, daily applications of the new organizational learning methods. Another contrast with the prior case is that there is not the same type of cohesive core learning team among the leaders and senior managers, although there are just as many strong supporters of the organizational learning initiative here. In assessing their progress, these leaders are clear that organizational learning has become part of the culture in OSB.

Phase One. Getting Ready

1. All staff (about 100) were invited to learning labs (some 300 person-days of staff development). Plus a review workshop was given, primarily for managers, by Rebecca Pille (an internal consultant from another federal agency).

2. Emphasis is placed on building internal capacity among line staff, as opposed to using external consultants or even internal ones.

3. Creating *the detail position* was a major part of the capacity-building strategy.

4. Encouragement of the use of organizational learning approaches in varied aspects of the work of the Office — especially during the first year at the micro-, interpersonal level.

5. "Dialogues" open to the entire OSB have been scheduled regularly, about every three weeks. (Note: This is an unusual locus or format for dialogue — a "town meeting" open to any OSB staff as opposed to a small group with more focus and more consistent attendance. There were some difficulties with guidelines and attendance.)

Phase Two: Pilot Project

After the first year of the initiative at OSB, there are not any specific projects, achievements, or quantified results that would impress the outside world. There was one top-priority project that was selected to be an organizational learning effort. Its tough and important mission was to re-engineer the entire process of postmarket surveillance of regulated medical devices, i.e., most of the work of OSB, which was closely interlocked with other Offices in the Center (the mother organization within FDA). Compared to the state monitoring project at OSEP, this task was entangled with more major external players and faced much tougher constraints. The central reengineering office, which exerted very tight control, was a powerful stakeholder. Integrating the organizational learning approach with the rigid demands of the re-engineering office proved more than this group could manage, especially given the large number of different groups that had to be coordinated. One lesson learned from this experience concerns the wisdom of this choice for a first-year project. Given that the leader wanted to take a risk since the project was so important to the organization, this raises questions about what kind of leadership is needed in such a case — both from the project leader and from the office director.

Assessment and Impressions of Cultural Change

A meeting involving seven "learning leaders" and senior executives of OSB (several occupied both categories) took place in March 2000 to review the progress of the organizational learning initiative. The meeting was called by Larry Kessler, director of OSB, at the suggestion of the researcher, who was present at the meeting. Among the examples narrated of areas where the new learning had been applied were the following:

> I have noticed a lot more meetings that I've attended where we tend to behave differently — using the ladder of inference* and trying not to climb up too far, keeping in mind our behavior and how it reflects on others and how people can react to that.

> I see the use of the ladder* [of inference] on a day-to-day basis, often in a light-hearted manner.

> We seem to be more careful than we were before about climbing the ladder of inference. An example is talking about exploring other people's perspectives — I think that's something we didn't do *nearly* as well three years ago.

> More recently [my division has] begun to think about how we can use SoL ideas to address how our partnership, our relationship is with this other office [which is our major customer ...]

What about results? According to this discussion, the main changes at OSB since their involvement in the SoL partnership are not so much different products, procedures, or policies (at least not so far) but "how we deal with our colleagues."

> One of our senior staff said to me, "I think SoL is the way we do business every day," and I try to have my division work like this anyway, and we try to keep these kinds of principles living and growing in the way we do business.

---

*The "ladder" is a learning tool designed to increase awareness of the degree to which we go beyond the hard facts in everyday perceptions and judgments.

As Larry Kessler, director of OSB, said: "This [organizational learning] has become part of our culture here."

Phase Three: Building Capacity
One important practice used at OSB to help their initiative take root (so far unique among the partnership projects) has been to create a full-time detail position, with 90-day rotations, for a staff member to devote full time to the initiative. So far two appointments have occurred. An interview with the first appointee will be used here. The second appointee has just completed her time, and no decision has been made about continuing the practice.

Mary Brady, the first appointee, is a branch chief within OSB and left those responsibilities for three months to fulfill the detail with much energy. During her detail, she estimates that she spoke to 80 staff members. Some people approached her, asking for help, and she took advantage of some regular meetings to insert something onto the agenda where she could. She also asked to be invited to speak to work groups. We could nickname this the "Jenny Appleseed" approach to promoting organizational learning, as opposed to one that focuses efforts around specific projects or depends on an executive-led, top-down approach.

In an interview Mary Brady stated her approach:

> Larry's [the director's] expectations were different than mine. I felt people needed to bite it off a little at a time. People in the government don't handle change well. I've been in government 16 years, and there is a lot of this type of training — one more thing the government is going to talk about and not act on. But I also felt they would be overwhelmed. Larry wanted me to integrate SoL into our strategic plan. I told him right away to put it on hold now. We need time to figure how to integrate this and get staff buy-in. See what we can do, little by little. People aren't going to understand massive change and where it is in their priorities. He was OK with that.
>
> The role I played was to remind people of what they learned in July. I started in November and I asked: What can we succeed in right away that will show something

tangible? What can we work on that will be individual and not have to add to their daily activities? So I thought of the mental models. Everyone seemed to enjoy that part the best. And what I did was focus on how we behave, how we react to others, how we're thinking — just being more cognizant of that on a daily basis. It might take six to eight weeks just for this part. I put them through a dog-and-pony show at all meetings and I worked with individuals who requested it. It was all voluntary. You don't need to comply, but you need to be aware of it when talking to others. We looked at the ladder of inference, mental models, [left-hand] columns. [My aim was to get them] to practice in meetings, in and outside the organization, and see how it feels to be using this. For the most part, everyone thought it was a good idea learning how to deal with difficult people, keeping your left-hand column intact, how can you deal with others? ... I ended up talking to virtually the whole office — 80 out of 100...

Mary Brady's approach to change leadership goes beyond being the open-handed teacher and coach (Jenny Appleseed). She also sees the need to recruit, support, and coach other leaders who can extend and multiply the effect. "I looked in each division for someone who could be my goodwill ambassador. I keep reinforcing with them, being a cheerleader and keeping it in the front of their mind, asking them to keep pushing it," Brady says.

Some Lessons Learned and Further Questions
- Using the tools of organizational learning, managers and staff at OSB believe they have improved the quality of workplace relations and the quality of work in several areas, as they learned to question their assumptions more often and to become more aware of how unverified assumptions and feelings may enter into perceptions and judgments, causing misunderstandings.

- An effective way of providing support for OSB staff in the process of incorporating organizational learning (OL) into their daily lives has been to detail an interested volunteer, a middle manager, or a recent learner to play an at-large support role.

A Learning-Based Approach to Leading Change

- The role of the full-time detail support person, plus the leadership of all those at OSB who believe in the value of organizational learning, in addition to learning labs made available to all staff, have all combined to make some elements of OL "part of our culture."

- Where is the leadership team for the OL initiative? There are a number of dedicated leaders, but they do not function as a team with frequent or regular communication (compared with other initiatives). It could be combined with the OSB director's senior management team, if they want to serve that function, or it could be a separate group.

- They chose reengineering as their pilot project. This was a high visibility, high stakes project that required a high degree of cooperation across boundaries, with powerful outside stakeholders. Was this too tough an assignment for inexperienced change leaders, given the difficult constraints?

Case Study: The Environmental Protection Agency (EPA): New England Regional Office

Overview
This case extended over four years, twice the time of the previous two cases, and it operated on a much larger scale, involving more than five times the number of staff (800). Still, it can be summarized in terms of the same three phases. In phase one, a senior executive conceived a vision for transforming the overall structure of this EPA regional office, aiming to integrate its components around a clear focus on results. He found a major ally in a senior HR colleague. Together they attended a three-day course in learning-based leadership and enlisted outside help in training and consultation, for themselves and later for the pilot project.

In phase two, a major pilot project was launched to inaugurate a newly formed department with major responsibilities for integrating services in entirely new ways. The new department was mandated by the new regional administrator as part of his sweeping reorganization of the entire office, rather than emerging out of the deliberations of a core learning team, as in the classic version of the model. There

was much learning from this pilot project (much of it painful), which contributed to the design of phase three, in which the change leaders shifted their focus from the new office (within the regional office) to the whole regional office.

Phase three also featured a strategic partnership with the human resources function to implement a redesigned performance management system that gave more impetus and direction to the drive for change. Finally, there is a phase four, going beyond the basic model, in which a surprise change of top leadership in the organization creates new possibilities for the change initiative.

Phase One: Getting Ready
In 1995, David Fierra, a senior executive in the EPA New England Regional Office, found himself chairing a taskforce to design a new Office of Ecosystem Protection (OEP), intended to integrate the work of the various programs within the regional office. He had sought this assignment, which he felt strongly was essential to this agency regaining a clear focus on its original purpose, but he knew it was bound to be an uphill struggle. Historically this agency (established in 1970) had grown out of a collection of separate federal laws and programs (Clean Air Act, Clean Water Act, etc.) each with its own legislation, funding, structure, sanctions, staffing, and accountability. The EPA had 25 years of accomplishment, but by 1995 it was apparent to a growing number of thoughtful EPA employees and other environmentalists that the environment could not be protected piecemeal and that a more integrated approach would be necessary. This was a formidable challenge since the staffs of each program had mostly spent their whole careers in that program and indeed many of them had been the founders of their program. While they might see some theoretical merit in the integration idea, they were still deeply committed to defending the integrity of their separate programs, as originally conceived, and they felt little resonance with the new vision at first. Making the challenge even more difficult was the fact that EPA headquarters was still organized in program "silos" for accountability purposes.

Fortunately, Fierra found a major ally in this tough leadership challenge in his colleague, senior human resources development specialist Georgie Bishop,

who led him to the second major asset: the approach and methods of organizational learning. "The two of them attended a three-day course, which their thought would be invaluable as an approach to managing the significant organizational changes that they believed to be necessary at the EPA New England Regional Office. And so it proved to be. Georgie Bishop was already acquainted with organizational learning and systems thinking, having heard Peter Senge five times at conferences (ASTD, Linkage, etc.). From the HR training budget she had bought copies of *The Fifth Discipline* and audio tapes. She had organized a study group on *The Fifth Discipline* within the HR department. "It made me think," she said, but exactly how it could be applied was not yet clear to her — until 1995. Fierra sought out her help with his leadership challenge. Had he not done so, she would have offered, since she was impressed by his unusual openness with staff and their trust in him. [Interview 7/8/99]

Phase Two
The launch of the new office was assisted by a three-day "learning lab" conducted by outside consultants in organizational learning for all 20 of the top staff of the new Office of Ecosystem Protection. As director, Fierra introduced weekly three-hour executive staff meetings (called "EcoLabs") that devoted significant blocks of time to thoughtful conversation aimed at identifying the core issues of the new approach and at examining the "mental models" they were each using to think about problems and solutions, so they could begin new ways of thinking towards better, integrated solutions. Dialogues in the EcoLab also focused on the question of how staffers in different areas of responsibility would interrelate at work. The purpose of these Ecolabs was "not to 'practice the tools [of organizational learning]' but trying to keep in mind what we had learned as we did our work and trying to become a 'learning team.'" These meetings were different from the kind of administrative meetings traditional to this agency, meetings occupied mainly with operational details and tactics. Instead, they kept a focus on defining and realizing the vision. They took themes from the vision statement to work on and they kept a focus on strategy and outcomes, as well as tactics. The meetings were structured but flexible. While they always had a prepared agenda, Fierra was flexible and would change the schedule if a topic with much emotion or energy behind it appeared. [Interview 14/7/99]

There was some initial resistance to Fierra's insistence that the executive team of the Office of Ecosystem Protection should together generate solutions to major issues. He tried to make them challenge their own thinking, instead of looking to him, as director, to make all the important decisions. He challenged them to understand their interdependencies and how they all contributed (or could contribute) together to achieving better environmental results. He was working from a mental model unfamiliar to them, one that assumed that the leader's proper role is not to make the major decisions but to coach and coordinate the efforts of those who are closer to the situation and who collectively have far more of the relevant knowledge. [Interview 14/7/99]

Results of Phases One and Two
About a year after the establishment of the Office of Ecosystem Protection in the EPA Regional Office in New England, there were indications that various results had been accomplished.

- OEP managers understood that the results the organization should be measuring and emphasizing included cleaner air, cleaner water, and a safe environment (as opposed to numbers of permits issued, or enforcement actions taken, for example).

- The heads of various programs learned about other programs in the regional office.

- OEP managers and staff developed some skills in "the five disciplines" of organizational learning [Senge, 1990].

- A new sense of openness and trust grew among OEP managers.

- Performance Partnership Agreements were developed with each state in the region.

- The states (as "customers") were more pleased with their dealings with the regional office. In fact, there were glowing reports from the states about the new emphasis in the regional office.

- A new strategic alliance formed between executive change leaders and human resource development staff.

Phase Two: Further Developments
In phase one, we told the story of a successful beginning to what was intended to be a process of

A Learning-Based Approach to Leading Change

transformation in a large, complex federal government agency. We told the truth, but not the whole truth. We did not indicate the scale of resistance that Dave Fierra met from certain members of his management team, nor the failure of his boss, the regional administrator, to back him up, nor the consequent level of personal pain and stress suffered by Fierra as he struggled with his leadership challenge in the face of seriously inadequate support. In organizational learning initiatives that are assisted by consultants within the Society for Organizational Learning, this is an uncommon occurrence. One of the basic guidelines is that initiatives should not be undertaken unless they have the commitment of a three-part leadership coalition, including a line manager (Dave Fierra in this case), an internal consultant (Georgie Bishop), and a senior sponsor.

The new regional administrator (head of the regional office), appointed by the first Clinton administration, enjoyed an outstanding public reputation as a dedicated environmentalist and a tough and brilliant public sector leader. He saw clearly the need for integration of EPA's programs and for more partnering outside the agency, and approved the introduction of a new Office of Ecosystem Protection within the regional office, which represented a radical change for that office. However, when Fierra found that two of his senior managers in the new office continued to oppose his efforts, by lobbying senior executives to complain about the changes and by actively disrupting EcoLab meetings on a regular basis, the regional administrator gave him no support in counseling, transferring or disciplining them. In fact, he paid very little attention to this major initiative to realign and integrate the regional office through the new OEP. That is, he did not concern himself with overseeing or supporting the management effort necessary to implement that vision. That was consistent with his management style, which was to provide very strong, directive leadership to his own high-priority projects, with a heavy emphasis on activity *outside* the agency. How the regional office was managed to support his strategies was not a subject that ever got his consistent attention.

The position of deputy administrator might have provided the support that the struggling head of the new OEP needed, but that did not happen. An unusual situation existed where the new regional administrator had divided the functions of the Deputy's office between two different managers, with an "acting" deputy. This significantly diminished the authority of the office and, as far as Dave Fierra was concerned, its ability to back him up effectively.

Earlier the office of deputy had become vacant due to the sudden death of the long-serving, much-loved previous deputy administrator. This loss was a great blow to the people of this agency. It coincided with budget cuts and the threat of major layoffs, as well as the arrival of the brash new regional administrator, who demanded sweeping changes right away, with little time for consultation. It was a deeply disturbing time for all of the employees of the EPA New England Regional Office.

For the main protagonist of this story, Dave Fierra, the result was that he faced debilitating opposition to his efforts to change the organization without the support of a supervisor, either for regular review or for backing up his authority to take drastic action in the last resort (such as transferring managers who refused to cooperate). The fact that he was in this situation was not due to a failure in planning. Rather it was bad luck that the deputy administrator position was not functioning normally at just this time and that the regional administrator directed his leadership to issues outside the agency. That left Fierra in a most difficult situation. Fortunately he had the steady support of his internal consultant, Georgie Bishop. She acted as advisor, planning partner, coach, link to occasional help from outside consultants, and confidante.

Phase Three: Strategic Alignment and Performance Management
In 1997, after two years as founder-director of the Office of Ecosystems Protection, Dave Fierra was reassigned by the regional administrator to a new position as director of strategic planning, charged with building a team of all the office directors aligned around environmental results instead of programs. From his two years of work in establishing the Office of Ecosystem Protection he had come to see a need to focus integration efforts on the other offices within the regional office. From his OEP position he had begun to impact the rest of the regional office, fostering increased collaboration across offices and programs — but mainly at

levels below that of office director. In his new position he would work mainly with them, but without having line authority over them. For a year he talked extensively with these managers, both individually and collectively, and began to see some positive changes — at least cognitively.

The office directors agreed to undertake a pilot effort to integrate the work of the regional office across four environmental results areas. These included safe drinking water, restoring water quality in 14 watersheds, eliminating environmental risks in three urban areas, and protecting wetlands in New England. To provide direction and accountability for the pilot stage, workplans were developed for each result area in the spring of 1998. Each work plan was to contain a specific quantifiable environmental objective and a listing of regional work needed to reach it. It was expected that the middle managers from the various offices would provide leadership in integrating the programs to accomplish the objective. Unfortunately, many middle managers (particularly in OEP) resisted collaborating with other programs to integrate their work around environmental results. As a result, the first year of the pilot was largely unsuccessful. The new OEP office director did not take action against the recalcitrant middle managers, stating that these new roles were not clearly defined.

It was now clear to Dave Fierra that many of the managers in the region were not motivated to become leaders and advocates of the newly re-defined mission of the organization as he had hoped. "I now believed that it was time to focus the leadership and behavioral changes needed to integrate the work through the performance management and planning system." As it happened, just at this time a mandate from EPA headquarters introduced a change in the format of the performance management system (PMS) to take effect in 1999. This helped to get senior managers in the regional office to pay attention.

Much work went into designing and negotiating a new PMS. Here the HR function enters this story as a strategic partner. A key person was Georgie Bishop, who has been a principal advisor to Dave Fierra since 1995. She now assumed a new role in facilitating a new and more committed approach to performance management in the Regional Office. A key role was also played by the Regional Human Resources Council, set up in the mid-1980's in response to serious morale problems in the Agency. The Council's function was to advise senior managers in the regional office on any matters affecting employees.

Membership of the Council included all levels of employees, including union representatives, and was chaired by the deputy regional administrator. The council could be used, in effect, as a permanent focus group to design and test ideas for new HR policies and programs. So the members were asked how to make the performance management system (PMS) truly relevant to the mission of the agency at the regional New England level.

The old performance management system was widely considered pointless, unproductive, and part of a paperwork ritual that was not taken seriously by staff at any level. So the HR council met in March 1998 to consider two questions: 1) how to get everyone to focus their work plans and goals on environmental results and 2) how to change the culture of the office.

The council created a large training program to launch the new performance management system, recognizing (in the words of Georgie Bishop) that this was an attempt at revolutionary change and culture shift. A total of 750 staff received training in 15 sessions in the fall of 1998. Eighty managers received separate training and then were also involved in the training of their own staffs. Consequently, in January 1999 the entire staff of the Boston Regional EPA Office was engaged in rewriting their individual performance standards, something that had not been done for many years, if ever. Everyone was directed to write their plan so as to answer two key questions: 1) what results do I seek to achieve, and 2) with whom do I need to interact so that this can happen?

Despite the major training effort, leaders of this initiative were not naive enough to think that that would suffice, given the magnitude of the cultural shift involved. Even so, they were surprised at the difficulty experienced in the first year. A Quality Assurance (QA) program was implemented in February and March in which a sample of the 190 plans of individual employees were reviewed,

using a general standards guide. This included a review of *all* plans for management and supervisory positions by the Strategic Planning Office. A sample of 70 performance plans were reviewed across the regional office from all levels and areas. QA reviewers were provided by HR, the management team, and the Office of Strategic Planning (Dave Fierra). Written reports were provided to each office with feedback based on the sample plans reviewed. QA reviewers also met with the management team of each office. Fierra offered to meet with each of the office directors individually to discuss changes needed in the individual performance standards submitted by their managers. One office director declined to meet, which resulted in unnecessary confrontation when the QA reviewers met with managers of that Office. At the meetings (about 90 minutes) the reviewers discussed the review of plans sampled from that office and also talked about the need to support this performance initiative with other HR efforts, especially professional development planning and resources.

Later Fierra met with the deputy administrator to review the initial implementation of the performance management system, including the roles played by senior executives in that process. Some had not met their duty to implement the new system to the best of their ability. He was concerned about how this would be handled in the performance reviews of those executives who were reviewed earlier, as Senior Executives, on a different schedule. Would there be accountability for this area, which had been determined by the top management of the regional office to be an essential requirement for their performance plans?

The challenge before the EPA regional office was to shift the vision of its employees to one where they integrated the efforts of all their programs with a focus on environmental results. An important part of their strategy to bring about that change was to implement a performance management system based on the new goals and standards, which would make each manager accountable not only for their own efforts but also for holding their own subordinates accountable for the same goals and standards. From an outsider's viewpoint, this was not so much a matter of redirecting the performance management system but of creating an effective one for the first time and giving it the nec-

essary direction. In Dave Fierra's own words, "The key was to link the regional and national strategies to the individual performance of each individual." In this struggle one could feel the weight of a legacy culture in which these ideas are still quite alien and unwelcome.

Phase Four: Unexpected Change
In November 1999, without any warning, the regional administrator (a political appointee) announced his resignation to take a position at a local university and to enter the private sector. This news came as a complete surprise to the staff. He had recently received some criticism in the press regarding alleged favoritism on a decision (*Boston Globe*, Nov. 16, 1999, p. A37) and on the drop in the number of enforcement actions and permits issued (consistent with the new vision). But he had also won major acclaim for negotiating a hard-fought, major clean-up agreement with General Electric (the toughest of opponents) and for forcing the Army to stop using its firing range on Cape Cod because of ground water contamination. The belief in-house was that he would be around for a while, and there was even speculation that he might be re-appointed by the new administration. He was such a strong factor in terms of policy and leadership style that his departure could hardly fail to be significant. If his replacement were someone who believed in the new vision and also gave it some real support as a top leader, what a difference that could make!

The deputy administrator, who would be promoted to regional administrator, had only been in that office some two years. In that time she had come to understand the need for a more integrated and strategic approach to achieving environmental results, as Dave Fierra had been advocating. Mindy Lubber, the new regional administrator, saw how it made sense in terms of EPA's mission and purpose. And unlike her former boss, she understood how it needed to be implemented — that it involved getting staff to work together in new ways and to think about the work of the agency in new ways. She understood well the need to create management infrastructures for staff development and performance assessment to enable the new direction in how this EPA Regional Office would approach its mission. On January 11, 2000 she held a meeting with the top 80 to 100 managers. Listed first among

the half-dozen priority topics she featured was a *focus on environmental results* and the need to integrate programs. Also on that list was the need for an improved *performance management system.* She and five other senior managers recently attended a three-day course in organizational learning, the same "leadership and mastery" course attended by Bishop and Fierra four years ago, when this story was just beginning.

Results
There is progress in this long, hard struggle. "We are now completing our second round of performance plan reviews with each office," says Dave Fierra. "The quality of the dialogue and overall understanding is improving." These are the crucial metrics — not numbers of performance standards completed without errors (for example) but the quality of thought and understanding demonstrated by staff. The new behavior sought from staff needs to be guided by new thinking on their part. So there is progress being made — but considerable resistance continues — and Fierra notes that, too. A change leader needs much patience and forbearance and needs to be capable of living with encouragement and disappointment mixed together.

In more than half a dozen visits to this agency for interviews, I rarely saw the same mood twice in succession: Sometimes there was frustration, but the next time there would be joy; it went back and forth, like a pendulum. We spent many hours talking about these events and sometimes speculating about the dynamics associated with them. Sometimes I heard fatigue and pain, but I also heard passion for working together for a clean, healthy, beautiful environment. I never heard cynicism and I never heard them consider giving up.

Dave Fierra's initial approach to transformation at EPA depended on the power of *vision.* However, his clear personal vision failed to connect with the personal visions of some of his reports. In the first few years, there was no *performance management system* to help carry the burden of alignment that vision alone could not carry. *Assessment* of organizational performance must focus on the quality of the dialogue about goals and standards, and the quality of understanding — not just alignment of standards and goals on paper — and then test for changed results.

Note by comparison that OSEP (working on a smaller scale) had success with the Vision Deployment Matrix as a very structured way to formulate and build upon vision, and also had the advantage of a small, unified top management group. This may have started as a slight advantage but through the organizational learning experience at OSEP, the three-person leadership team became much more cohesive and they then helped the 12-person supervisors' group to become more cohesive also.

Conclusion
Reflecting together on "how are things going?" and "why do we think so?" is an essential part of the process of managing change — both because we need to learn from our mistakes and successes, and because we need to learn from each other. That is, we need to learn how to understand each other better — the people we are supposed to work with. We need to understand better how they think (and how *we* think), how they see things (and how we do), and how they feel about things (compared to how we do). These are the keys to changing the way we behave with each other, especially how we collaborate more effectively across the old barriers that traditionally separate us — barriers of culture, ethnicity, gender, class, occupation, and all the different identities formed within an organization. Improved results for the organization depend on people working together more effectively across these boundaries. We can *learn* to do that if we are determined. It's not like learning computer science, codified knowledge that already exists and just needs to be internalized; it's more like creating new knowledge together — knowledge about us and how we can collaborate better.

The "lessons" listed here may or may not be correct; they may not be the most important lessons to be drawn from these change efforts. They are not so much conclusions as questions for further consideration. The point is that every change initiative must create its own reflections and lessons. That is how learning-based change happens — through people using their thinking and reality-testing abilities to grope forward through the murky, unmapped territory. A learning organization creates new futures, because the old ones do not work well enough anymore. And the only way for this entity we call an "organization" to create anything new is for its members to create it, using their ability to learn.

A Learning-Based Approach to Leading Change

Change leaders, core learning teams, and everyone involved in learning-based change —all have learning to do. This is the point of the learning-based approach. It is not about following some guidelines to "get it right." That's the old model. The new model is about using our capacity to learn in order to move from bad places to better ones, improving our organizations for the benefit of all.

Some Lessons Learned and Questions For Further Reflection

To change EPA New England from a focus on enforcement *activities* to a focus on environmental results *requires coordinated changes in several areas:*

- changes in the *vision* that members have of the agency's purpose

- changes in many of the members' *mental models*

- changes in the agency's *formal organizational structure,* including setting up the Office of Ecosystem Protection and (within it) State Offices, especially changes in the measurement system or performance appraisal system (changing the individual performance measurement system should have begun earlier)

- changes in *resource allocation* priorities (away from traditional enforcement work)

- changes in the agency's relations with (at least some of) its *major stakeholders*, especially state agencies, congressional representatives, other federal agencies, businesses, national environmental groups, local citizen groups

- new learning opportunities for the new roles and duties, including the nature of *communication* between staff and managers at all levels — change leaders also need opportunities for dialogue and feedback

- support for the learning of new roles in several ways
  - "training" (e.g., how to write the new performance standards and goals)
  - "practice fields" and "learning labs" where coaching and support are provided (by internal or external consultants) while people work on real problems
  - "reflective partners" for the most active change leaders — internal human resource development consultants would be partnered with individual change leaders (as

Georgie Bishop was with Dave Fierra) and with a change leadership team (as Bette Novak was with the three OSEP leaders

- reassignment or termination of staff who do not make the necessary changes after a fair interval and proper resources

To make these major changes requires effective *communication via* participation:

- explaining why change is necessary, the direction of the change, and the new thinking behind it

- listening while staff react to this new material, express their concerns, and reflect on what it means to them

- jointly developing ideas for implementing the new direction (even reinventing the wheel) so that commitment develops to the change goals

- explaining specific implementation plans once they are adopted

- listening to feedback on problems found with the new changes and making use of it

This communication (dialogue) requires the active participation of staff and leaders on all sides of the conversation, in an effort to understand the intent and assumptions of others.

Dilemmas Basic to Organizational Transformation

1. How do you save the change leaders/pioneers from getting "murdered" by the old measurement system? (The more successful they are under the new model, the worse they look to the old system.)

2. How do you keep essential services operating while changing to a new system?

(Common solution: keep the old reward system. Hence we create problem #1.)

References

This short list of useful references combines sources that were cited in the text and other related works that are recommended as useful to readers beginning to explore this subject.

Argyris, C., D. A. Schon (1996). *Organizational Learning II.* Reading, Mass., Addison-Wesley.

Bailyn, L., J. K. Fletcher, D. Kolb (Summer 1997). "Unexpected Connections: Considering Employees' Personal Lives Can Revitalize Your Business," *Sloan Management Review.*

Miles, R. H. (1997). *Corporate Comeback.* San Francisco, Jossey-Bass.

Mintzberg, H. (1989). *Mintzberg on Management: Inside Our Strange World of Organizations.* New York, Free Press.

Moore, M. H. (1995). *Creating Public Value: Strategic Management in Government.* Cambridge, MA, Harvard University Press.

Nadler, D. and M. B. Nadler (1998). *Champions of Change: how CEOs and their companies are mastering the skills of radical change.* San Francisco, Jossey-Bass.

Nevis, E. C., J. E. Lancourt, et al. (1996). *Intentional Revolutions: A Seven-Point Strategy for Transforming Organizations.* San Francisco, Jossey-Bass.

Ouchi, W. (1981). *Theory Z: How American Business Can Meet the Japanese Challenge.* Reading, MA, Addison Wesley.

Pascale, R. T. and A. G. Athos (1981). *The Art of Japanese Management: Applications for American executives.* New York, Simon and Schuster.

Quinn, J. B., J. J. Baruch, et al. (1997). *Innovation Explosion: Using Intellect and Software to Revolutionize Growth Strategies.* New York, Free Press.
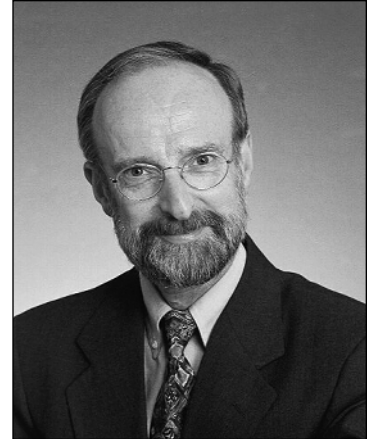
Senge, P. M. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization.* New York, Doubleday/Currency.

Senge, P. M. Charlotte Roberts, Rick Ross, Bryan Smith, Art Kleiner (1994). *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization.* New York, Currency/Doubleday.

Senge, P. M. Charlotte Roberts, Rick Ross, George Roth, Bryan Smith, and Art Kleiner (1999). *The Dance of Change: The Challenges of Sustaining Momentum in Learning Organizations.* New York, Currency/Doubleday.

Young, G. J. (2000). *Transforming Government: The Revitalization of the Veterans Health Administration.* Arlington, VA, The PricewaterhouseCoopers Endowment for The Business of Government.

About the Author

Barry Sugarman is currently involved in a partnership between the Society for Organizational Learning and several federal government agencies. He is the author of four books and numerous articles. He earned a Ph.D. from Princeton University in sociology and anthropology, an M.A. from Southern Illinois University, and a B.A. from the University of Exeter, England.

Dr. Sugarman has been a professor of management at Lesley University in Cambridge, Massachusetts, since 1979. He is now a research associate at the Verdict Center, supported by the Veterans Health Administration at the University of Texas, San Antonio, to study and improve the dissemination of new medical knowledge.

Formerly a research associate at the Center for Organizational Learning at the MIT Sloan School of Management, Dr. Sugarman is conducting a 20-case, comparative study of change initiatives in business and government organizations that emphasize participation and a learning-based approach to change leadership. Among the topics being investigated are the roles of formal and informal leaders in introducing new ways of learning in the workplace; the shifting of shared understandings about the boundary between "work" and "learning"; and ways of more effectively creating, refining, and sharing knowledge in work groups, communities of practice, and other social networks.

The first five years of Dr. Sugarman's career were spent at Oxford University, England, and focused on the sociology of learning. Towards the end of that period he became deeply interested in what was then the radically new model of the therapeutic community for addiction recovery. He was one of the first to study and assist those therapeutic communities in the early 1970s and published several pieces in this area. That interest led to several years of working outside the academy, gaining experience in both the nonprofit sector and county government. In Dayton, Ohio, he developed an accountability system for all the nonprofit agencies that contracted with the county board of mental health and mental retardation.

At Lesley University Graduate School, he taught mid-career professionals in health services and general management areas. He also designed and directed the unique master's degree program in management of substance abuse services.

Barry Sugarman grew up in London, England and began to explore the United States as a graduate student. He is now a U.S. citizen. He has been a consultant to a variety of organizations on strategic management, program assessment, and the improvement of learning systems. He is now teaching a course on organizations in the Internet economy at the Harvard University Extension School.

Key Contact Information

To contact the author:

Barry Sugarman
77 Oakdale Road
Newton, MA 02459
(617) 332-0642

e-mail: sugarman@mail.lesley.edu

To contact the Co-chairs of the High-Performing Federal Agencies Committee of the Human Resource Development Council:

Blanco T. High
Internal Consultant
U.S. Department of Veterans Affairs
(202) 273-9760

e-mail: blanco.high@mail.va.gov

Ruth Salinger
Internal Performance Consultant
U.S. Department of Health and Human Services
(202) 690-5549

e-mail: rsalinge@os.dhhs.gov

To contact the coordinator of SoL-Federal Government Partnership:

Jeff Clanon

Society for Organizational Learning
222 Third Street, Suite 2323
Cambridge, MA 02142
(617) 492-9205

e-mail: jclanon@solonline.org

A Learning-Based Approach to Leading Change

ENDOWMENT REPORTS AVAILABLE

Managing Workfare: The Case of the Work Experience Program in the New York City Parks Department (June 1999)

Steven Cohen
Columbia University

Results of the Government Leadership Survey: A 1999 Survey of Federal Executives (June 1999)

Mark A. Abramson
Steven A. Clyburn
Elizabeth Mercier
PricewaterhouseCoopers

Credit Scoring and Loan Scoring: Tools for Improved Management of Federal Credit Programs (July 1999)

Thomas H. Stanton
Johns Hopkins University

The Importance of Leadership: The Role of School Principals (September 1999)

Paul Teske
Mark Schneider
State University of New York at Stony Brook

Leadership for Change: Case Studies in American Local Government (September 1999)

Robert B. Denhardt
Janet Vinzant Denhardt
Arizona State University

Managing Decentralized Departments: The Case of the U.S. Department of Health and Human Services (October 1999)

Beryl A. Radin
State University of New York at Albany

New Tools for Improving Government Regulation: An Assessment of Emissions Trading and Other Market-Based Regulatory Tools (October 1999)

Gary C. Bryner
University of Colorado School of Law

Determining a Level Playing Field for Public-Private Competition (November 1999)

Lawrence L. Martin
Columbia University

An Assessment of Brownfield Redevelopment Policies: The Michigan Experience (November 1999)

Richard C. Hula
Michigan State University

Religious Organizations, Anti-Poverty Relief, and Charitable Choice: A Feasibility Study of Faith-Based Welfare Reform in Mississippi (November 1999)

John P. Bartkowski
Mississippi State University
Helen A. Regis
Louisiana State University

Business Improvement Districts and Innovative Service Delivery (November 1999)

Jerry Mitchell
Baruch College, The City University of New York

Profiles in Excellence: Conversations with the Best of America's Career Executive Service (November 1999)

Mark W. Huddleston
University of Delaware

San Diego County's Innovation Program: Using Competition and a Whole Lot More to Improve Public Services (January 2000)

William B. Eimicke
Columbia University

Using Activity-Based Costing to Manage More Effectively (January 2000)

Michael H. Granof
David E. Platt
Igor Vaysman
University of Texas at Austin

Innovation in the Administration of Public Airports (March 2000)

Scott E. Tarry
Southern Illinois University

✱ **Transforming Government:** The Renewal and Revitalization of the Federal Emergency Management Agency (April 2000)

R. Steven Daniels
University of Alabama at Birmingham
Carolyn L. Clark-Daniels
Birmingham, Alabama

✱ **Transforming Government:** Creating the New Defense Procurement System (April 2000)

Kimberly A. Harokopus
Boston College

Entrepreneurial Government: Bureaucrats as Businesspeople (May 2000)

Anne Laurent
Government Executive

Leaders Growing Leaders: Preparing the Next Generation of Public Service Executives (May 2000)

Ray Blunt
Council for Excellence in Government

Trans-Atlantic Experiences in Health Reform: The United Kingdom's National Health Service and the United States Veterans Health Administration (May 2000)

Marilyn A. DeLuca
New York University

Reflections on Mobility: Case Studies of Six Federal Executives (May 2000)

Michael D. Serlin
International Institute of Business Technologies

Implementing State Contracts for Social Services: An Assessment of the Kansas Experience (May 2000)

Jocelyn M. Johnston
Barbara S. Romzek
University of Kansas

✱ **Transforming Government:** The Revitalization of the Veterans Health Administration (June 2000)

Gary J. Young
Boston University School of Public Health and Department of Veterans Affairs

Managing Telecommuting in the Federal Government: An Interim Report (June 2000)

Gina Vega
Merrimack College
Louis Brennan
Trinity College, University of Dublin

Using Virtual Teams to Manage Complex Projects: A Case Study of the Radioactive Waste Management Project (August 2000)

Samuel M. DeMarie
Iowa State University

The Auction Model: How the Public Sector Can Leverage the Power of E-Commerce Through Dynamic Pricing (October 2000)

David C. Wyld
Southeastern Louisiana University

Rethinking U.S. Environmental Protection Policy: Management Challenges for a New Administration (November 2000)

Dennis A. Rondinelli
University of North Carolina at Chapel Hill

The Challenge of Managing Across Boundaries: The Case of the Office of the Secretary in the U.S. Department of Health and Human Services (November 2000)

Beryl A. Radin
State University of New York at Albany

Corporate Strategic Planning in Government: Lessons from the United States Air Force (November 2000)

Colin Campbell
Georgetown University

A Learning-Based Approach to Leading Change (December 2000)

Barry Sugarman
Lesley College and Society for Organizational Learning

Supercharging the Employment Agency: An Investigation of the Use of Information and Communication Technology to Improve the Service of State Employment Agencies (December 2000)

Anthony M. Townsend
University of Delaware

To download or order a copy of these reports, visit the Endowment website at: endowment.pwcglobal.com

✱ 2000 Presidential Transition Series

About PricewaterhouseCoopers

The Management Consulting Services practice of PricewaterhouseCoopers helps clients maximize their business performance by integrating strategic change, performance improvement and technology solutions. Through a worldwide network of skills and resources, consultants manage complex projects with global capabilities and local knowledge, from strategy through implementation. PricewaterhouseCoopers (www.pwcglobal.com) is the world's largest professional services organization. Drawing on the knowledge and skills of more than 150,000 people in 150 countries, we help our clients solve complex business problems and measurably enhance their ability to build value, manage risk and improve performance in an Internet-enabled world. PricewaterhouseCoopers refers to the member firms of the worldwide PricewaterhouseCoopers organization.

For additional information, contact:

Mark A. Abramson
Executive Director
The PricewaterhouseCoopers Endowment for
    The Business of Government
1616 North Fort Myer Drive
Arlington, VA 22209

(703) 741-1077
fax: (703) 741-1076
e-mail: endowment@us.pwcglobal.com
website: endowment.pwcglobal.com

PRICEWATERHOUSECOOPERS

The PricewaterhouseCoopers Endowment for
The Business of Government

1616 North Fort Myer Drive
Arlington, VA 22209-3195