

The Fifth Discipline

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Introduction

The organizations that will truly excel in the future will be those that discover how to tap people's commitment and develop the capacity to learn at all levels in an organization. Deep down, people are learners. No one has to teach an infant to learn. In fact, no one has to teach infants anything. They are intrinsically inquisitive, masterful learners. Learning organizations are possible because at heart we all love to learn. Through learning we re-create ourselves and are able to do something we were never able to do earlier. Through learning we re-perceive the world and our relationship to it. Through learning we extend our capacity to create, to be part of the generative process of life. There is within each of us a deep hunger for this type of learning. This seminal book by Peter M Senge explains how learning organizations can be built.

The building blocks

Systems Thinking

Business and other human endeavours are systems of interrelated actions, whose full impact may be seen only after years. Since we are part of these systems, it's hard to see the whole pattern of change. Instead, we tend to focus on snapshots of isolated parts of the systems, and wonder why our deepest problems never seem to get solved. Systems thinking is a conceptual framework, to make the full patterns clearer and to help us see how to change them effectively.

Personal Mastery

Mastery means a special level of proficiency. People with a high level of personal mastery are able to consistently realize the results that matter most deeply to them in effect. They approach their life as an artist would approach a work of art, by becoming committed to their own lifelong learning. The discipline of personal mastery, starts with clarifying the things that really matter to us, of living our lives in line with our highest aspirations.

Mental Models

Mental models are deeply ingrained assumptions, generalizations, or even pictures of images that influence how we take action. Very often, we are not consciously aware of our mental models or the effects that they have on our behavior. Many insights into new markets or outmoded organizational practices fail to get put into practice because they conflict with powerful, tacit mental models.

Institutional learning is the process whereby people change their shared mental models of the company, their markets, and their competitors.

Building Shared Vision

If any one idea about leadership has inspired organizations for thousands of years, it's the capacity to hold a shared picture of the future we seek to create. When there is a genuine vision, people excel and learn, not because they are told to, but because they want to. But many leaders have personal visions that never get translated into shared visions that galvanize an organization. All too often, a company's vision revolves around the charisma of a leader, or around a crisis that galvanizes everyone temporarily. But, people must pursue a lofty goal, not only in times of crisis but at all times. What is needed is a discipline for translating individual vision into shared vision – not a “cook book” but a set of principles and guiding practices.

Team Learning

The discipline of team learning starts with “dialogue,” the capacity of team members to suspend assumptions and enter into a genuine “thinking together.” Dialogue also involves learning how to recognize the patterns of interaction in teams that undermine learning. The patterns of defensiveness are often deeply engrained in how a team operates. If unrecognized, they undermine learning. If recognized, they can actually accelerate learning.

Assessing the organization’s learning disability

Most organizations learn poorly. The way they are designed and managed, the way people’s jobs are defined, and most importantly, the way people have been taught to think and interact, create fundamental learning disabilities.

When people in organizations focus only on their position, they have little sense of responsibility for the results they produce. Moreover, when results are disappointing, we tend to find someone or something outside ourselves to blame when things go wrong. All too often, “proactiveness” is reactivity in disguise. True proactiveness comes from seeing how we contribute to our own problems. Actions in organizations are dominated by concern with events: last month’s sales, the new budget cuts, the last quarter’s earnings, who just got promoted or fired, the new product our competitors just announced, the delay in launching a new product, and so on.

Our fixation on events is actually part of our evolutionary programming. The irony is that today the primary threats to our survival, both of our organizations and of our societies, come not from sudden events but from slow, gradual processes. The arms race, environmental decay, the erosion of our society’s public education system, increasingly obsolete physical capital, and decline in design or product quality are all slow, gradual processes. Learning to see slow, gradual processes requires slowing down our frenetic pace and paying attention to the subtle as well as the dramatic.

We learn best from experience but we never directly experience the consequences of many of our most important decisions. The most critical decisions made in organizations have systemwide consequences that stretch over years or decades.

Systems thinking

Systems thinking is the fifth discipline. It is the conceptual cornerstone that underlies all the five learning disciplines. The easy or familiar solution is not only ineffective; sometimes it is addictive and dangerous. The long-term, insidious consequence of applying non-systemic solutions is the increased need for more and more of the solution.

There is a fundamental mismatch between the nature of reality in complex systems and our predominant ways of thinking about that reality. The first step in correcting that mismatch is to let go of the notion that cause and effect are close in time and space. Tackling a difficult problem is also a matter of seeing where the high leverage lies, a change which – with a minimum of effort would lead to lasting, significant improvement. This point is quite similar to what Malcolm Gladwell makes in his book, “The Tipping Point”.

Without systems thinking, there is neither the incentive nor the means to integrate the learning disciplines that have come into practice. Systems thinking is the cornerstone of how learning organizations think about their world.

Sophisticated tools of forecasting and business analysis, as well as elegant strategic plans, usually fail to produce dramatic breakthroughs in managing a business. They are all designed to handle the sort of complexity in which there are many variables. Senge calls it detail complexity. But there is another type of complexity, where cause and effect are subtle, and where the effects over time of interventions are not obvious. This, Senge calls dynamic complexity. Conventional forecasting, planning, and analysis are not equipped to deal with dynamic complexity.

When the same action has dramatically different effects in the short run and in the long run, there is dynamic complexity. When an action has one set of consequences locally and a very different set of consequences in another part of the system, there is dynamic complexity. When obvious interventions produce non-obvious consequences, there is dynamic complexity.

The real leverage in most management situations lies in understanding dynamic complexity, not detail complexity. Unfortunately, most “systems analyses” focus on detail complexity, not dynamic complexity.

Systems thinking is useful for describing a vast array of interrelationships and patterns of change. Ultimately, it helps us see the deeper patterns lying behind the events and the details.

In mastering systems thinking, we give up the assumption that there must be an individual, or individual agent, responsible. Everyone shares responsibility for problems generated by a system. That does not necessarily imply that everyone involved can exert equal leverage in changing the system. But it discourages the search for scapegoats.

In reinforcing processes, a small change builds on itself. A small action snowballs, with more and more and still more of the same, resembling compounding interest. But there’s nothing inherently bad about reinforcing loops. There are also “virtuous cycles” – processes that reinforce in desired directions.

If we are in a balancing system, we are in a system that is seeking stability. If the system’s goal is one we like, we will be happy. If it is not, we will find all our efforts to change matters frustrated until we can either change the goal or weaken its influence. Nature loves a balance – but many times, human decision makers act contrary to these balances, and pay the price.

In general, balancing loops are more difficult to see than reinforcing loops because it often looks like nothing is happening. Leaders who attempt organizational change often find themselves unwittingly caught in balancing processes. To the leaders, it looks as though their efforts are clashing with the sudden resistance that seems to come from nowhere. In fact, the resistance is a response by the system, trying to maintain an implicit system goal. Until this goal is recognized, the change effort is doomed to failure.

Systems seem to have minds of their own. This is specially evident in delays between actions and their consequences. Delays can make us badly overshoot the mark, or they can have a positive effect if we recognize them and work with them.

That’s one of the lessons of balancing loops with delays. Aggressive action often produces exactly the opposite of what is intended. It produces instability and oscillation, instead of moving us more quickly toward our goal.

Symptomatic intervention

A reinforcing (amplifying) process is set in motion to produce a desired result. It creates a spiral of success but also creates inadvertent secondary effects (manifested in a balancing process) which eventually slow down the success. Instead of trying to push growth, we must remove the factors limiting growth.

An underlying problem generates symptoms that demand attention. But such a problem is difficult for people to address, either because it is obscure or costly to confront. So people “shift the burden” of their problem to other solutions – well-intentioned, easy fixes which seem extremely efficient.

Solutions that address only the symptoms of a problem, not fundamental causes, tend to have short term benefits at best. In the long term, the problem resurfaces and there is increased pressure for symptomatic response. Meanwhile, the capability for fundamental solutions can atrophy.

Symptomatic intervention; the “quick fix,” solves the problem symptom quickly, but only temporarily. In case of a more fundamental response to the problem, it takes longer to become evident. However, the fundamental solution works far more effectively. It may be the only enduring way to deal with the problem.

The shifting burden structure explains a wide range of behaviors where well-intended “solutions” actually make matters worse over the long term. Opting for “symptomatic solutions” is enticing. Apparent improvement is achieved. Pressures, either external or internal, to “do something” about a vexing problem are relieved. But easing a problem symptom also reduces any perceived need to find a more fundamental solution. Over time, people rely more and more on the symptomatic solution. Without anyone making a conscious decision, people have “shifted the burden” to increasing reliance on symptomatic solutions.

A special case of shifting the burden, which recurs with alarming frequency, is “eroding goals.” Whenever there is a gap between our goals and our current situation there are two sets of pressures: to improve the situation and to lower our goals. Dealing effectively with the situation requires a combination of strengthening the fundamental response and weakening the symptomatic response. Strengthening fundamental responses almost always requires a long-term orientation and a sense of shared vision. Weakening the symptomatic response requires willingness to face the truth about palliatives and “looking good” solutions.

Leverage

The bottom line of systems thinking is leverage. We must see where small actions and changes in structures can lead to significant, enduring improvements. The best results come not from large-scale efforts but from small well-focused actions. Nonsystematic ways of thinking consistently lead us to focus on low-leverage changes, on symptoms where the stress is greatest. So we repair or ameliorate the symptoms. But such efforts only make matters worse in the long run.

Systems thinking means organizing complexity into a coherent story that illuminates the cause of problems and how they can be remedied in enduring ways. The increasing complexity of today’s world leads many managers to assume that they lack the information they need to act effectively. The fundamental “information problem” faced by managers is not too little information but too much information. What we most need are ways to know what is important and what is not

important, what variables to focus on and which to pay less attention to. This will generate leverage.

Personal Mastery

Organizations learn only if individual employees who learn. Individual learning is a necessary, through not sufficient condition for organizational learning. We must make personal mastery a part of our lives. This involves continually clarifying what is important to us. We often spend too much time coping with problems along our path that we only have a vague idea of what's really important to us. We also need to see current reality more clearly. We've all known people entangled in counterproductive relationships, who remain stuck because they keep pretending everything is all right. In moving toward a desired destination, it is vital to know where we are now.

The juxtaposition of vision and a clear picture of current reality generates "creative tension". The essence of personal mastery is learning how to generate and sustain creative tension in our lives.

The gap between vision and current reality is a source of creative energy. If there is no gap, there would be no need for any action to move toward the vision. But when there is a gap between the goals and the current reality, negative emotion may also arise. We may lower our goals when we are unwilling to live with emotional tension. On the other hand, when we understand creative tension and allow it to operate by not lowering our vision, vision becomes an active force. Truly creative people use the gap between vision and current reality to generate energy for change.

Mastery of creative tension leads to a fundamental shift in our whole posture toward reality. Current reality becomes our ally not an enemy. An accurate, insightful view of current reality is as important as a clear vision. If the first choice in pursuing personal mastery is to be true to our own vision, the second fundamental choice in support of personal mastery is commitment to the truth.

What limits our ability to create what we really want is belief in our powerlessness and unworthiness. People cope with these problems in different ways. Letting our vision erode is one such strategy. The second is to try to manipulate ourselves into greater effort toward what we want by creating artificial conflict, such as through avoiding what we do not want.

Some people psyche themselves up to overpower all forms of resistance to achieving their goals. Willpower is so common among highly successful people that many see its characteristics as synonymous with success: a maniacal focus on goals, willingness to "pay the price," ability to defeat any opposition and surmount any obstacle.

Being committed to the truth is far more powerful than any technique. It means a relentless willingness to root out the ways we limit or deceive ourselves from seeing what is, and to continually challenge our theories or why things are the way they are. It means continually broadening our awareness.

Focusing on the desired intrinsic result is a skill. For most of us, it is not easy at first, and takes time and patience to develop. As soon as we think of some important personal goal, almost immediately we think of all the reasons why it will be hard to achieve – the challenges we will face and the obstacles we will have to overcome. While this is very helpful for thinking through alternative strategies for achieving our goals, it is also a sign of lack of discipline when thoughts about "the process" of achieving our vision continually crowd out our focus on the outcomes we

seek. We must work at learning how to separate what we truly want, from what we think we need to do in order to achieve it.

A useful starting exercise for learning how to focus more clearly on desired results is to take any particular goal or aspect of our vision. If we ask ourselves the question, “If I actually had this, what would it get me?”, the answer to that question reveals “deeper” desires lying behind the goal. In fact, the goal is actually an interim step to reach a more important result.

Ultimately, what matters most in developing the subconscious rapport characteristic of masters is the genuine caring for a desired outcome, the deep feeling that it is the “right” goal. The subconscious seems especially receptive to goals in line with our deeper aspirations and values.

People with high levels of personal mastery do not set out to integrate reason and intuition. Rather, they achieve it naturally – as a by-product of their commitment to use all the resources at their disposal. They cannot afford to choose between reason and intuition, or head and heart.

The discipline of seeing interrelationships gradually undermines older attitudes of blame and guilt. We begin to see that all of us are trapped in structures embedded both in our ways of thinking and in the interpersonal and social milieus in which we live. Our knee-jerk tendency to find fault with one another gradually fades, leaving a much deeper appreciation of the forces under which we all operate.

Mental Models

New insights fail to get put into practice because they conflict with deeply held internal images of how the world works. That is why the discipline of managing mental models – surfacing, testing, and improving our internal pictures of how the world works holds the key to building learning organizations.

The problems with mental models arise not because they are right or wrong but because we often act without being aware of them. The healthy corporations are ones which can systematize ways to bring people together to develop the best possible mental models for facing any situation at hand.

Learning skills fall into two broad classes: skills of reflection and skills of inquiry. Skills of reflection concern slowing down our own thinking processes so that we can become more aware of how we form our mental models and the ways they influence our actions. Inquiry skills are concerned with how we operate in face-to-face interactions with others, especially in dealing with complex issues. People who become lifelong learners practice “reflection in action,” the ability to reflect on one’s thinking while acting.

Our mind tends to move at lightning speed. We immediately “leap” to generalizations so quickly that we never think of testing them. Our rational minds are extraordinarily facile at “abstracting” from concrete particulars – substituting simple concepts for many details and then reasoning in terms of these concepts. But our very strengths in abstract conceptual reasoning also limit our learning, when we are unaware of our leaps from particulars to general concepts.

Leaps of abstraction occur when we move from direct observations (concrete “data”) to generalization without testing. Leaps of abstraction impede learning because they become axiomatic. What was once an assumption becomes treated as a fact.

To spot leaps of abstraction, we need to keep asking what we believe about the way the world works – the nature of business, people in general, and specific individuals. We need to ask “What is the ‘data’ on which this generalization is based?” We need to ask, “Am I willing to consider that this generalization may be inaccurate or misleading?”

This is a powerful technique for beginning to “see” how our mental models operate in particular situations. It reveals ways that we manipulate situations to avoid dealing with how we actually think and feel, and thereby prevent a counterproductive situation from improving.

Most managers are trained to be advocates. In fact, in many companies, what it means to be a competent manager is to figure out what needs to be done, and enlist whatever support is needed to get it done. Individuals became successful in part because of their abilities to debate forcefully and influence others. Inquiry skills, meanwhile, go unrecognized and unrewarded. But as managers rise to senior positions, they confront more complex and diverse issues. Suddenly, they need to tap insights from other people. They need to learn. Now the manager’s advocacy skills become counterproductive. What is needed is blending advocacy and inquiry to promote collaborative learning.

When operating in pure advocacy, the goal is to win the argument. When inquiry and advocacy are combined, the goal is no longer “to win the argument” but to find the best argument. When we operate in pure advocacy, we tend to use data selectively, presenting only the data that confirm our position. When we explain the reasoning behind our position, we expose only enough of our reasoning to “make our case,” avoiding areas where we feel our case might be weak. By contrast, when both advocacy and inquiry are high, we are open to disconfirming data as well as confirming data – because we are genuinely interested in finding flaws in our view. Likewise, we expose our reasoning and look for flaws in it, and we try to understand others’ reasoning.

Learning eventually results in changes in action, not just taking in new information and forming new “ideas.” That is why recognizing the gap between our espoused theories (what we say) and our “theories-in-use” (the theories that lay behind our actions) is vital. Otherwise, we may believe we’ve “learned” something just because we’ve got the new language or concepts to use, even though our behavior is completely unchanged.

Systems thinking is equally important to working with mental models effectively. Most of our mental models are systematically flawed. They miss critical feedback relationships, misjudge time delays, and often focus on variables that are visible or salient, not necessarily high leverage. Understanding these flaws can help to see where prevailing mental models will be weakest and where more than just “surfing” the mental models will be required for effective decisions. Ultimately, the payoff from integrating systems thinking and mental models will be not only improving our mental models but altering our ways of thinking. This will result in shifting from mental models dominated by events to mental models that recognize longer-term patterns of change and the underlying structures producing those patterns.

Shared vision

Shared vision is vital for the learning organization because it provides the focus and energy for learning. While adaptive learning is possible without vision, generative learning, occurs only when people are striving to accomplish something that matters deeply to them. In fact, the whole idea of generative learning will seem abstract and meaningless until people become excited about some vision they truly want to accomplish.

Vision creates the spark, the excitement that lifts an organization out of the mundane. Shared vision fosters risk taking and experimentation. People know what needs to be done. Even if they don't know how to do it, they keep experimenting till they succeed. But even when they experiment, there is no ambiguity at all. It's perfectly clear why they are doing it.

Organizations intent on building shared visions continually encourage members to develop their personal visions. They want people to have their own vision, not to "sign up" for someone else's. That leads to compliance, not commitment. On the other hand, people with a strong sense of personal direction can join together to move toward what they truly want.

Personal mastery is the bedrock for developing a shared vision. This means not only personal vision, but commitment to the truth and creative tension – the hallmarks of personal mastery.

The origin of the vision is much less important than the process whereby it comes to be shared. It is not truly a "shared vision" until it connects with the personal visions of people throughout the organization.

In many organizations, most people are in states of formal or genuine compliance with the organization's goals and ground rules. They go along with "the program," sincerely trying to contribute. On the other hand, people in non-compliance or grudging compliance usually stand out. They are opposed to the goals or ground rules and let their opposition be known, either through inaction or through grudging obedience. An organization made up of genuinely compliant people will be very productive and cost effective.

Yet, there is a world of difference between compliance and commitment. The committed person brings an energy, passion, and excitement that cannot be generated if he is only compliant. The committed person does not play by the "rules of the game." He is responsible for the game. If the rules of the game stand in the way of achieving the vision, he will find ways to change the rules. A group of people truly committed to a common vision is an awesome force. They can accomplish the seemingly impossible.

Building shared vision is actually only one piece of a larger activity: developing the "governing ideas" for the enterprise, its vision, purpose or mission, and core values. These governing ideas answer three critical questions: "What?" "Why?" and "How?"

- Vision is the "What?" – the picture of the future we seek to create.
- Purpose (or "mission") is the "Why?" the organization's answer to the question, "Why do we exist?"
- Core values answer the question "How do we want to act? A company's values describe how the company wants life to be on a day-to-day basis, while pursuing the vision.

There are two fundamental sources of energy that can motivate organizations: fear and aspiration. Fear can produce extraordinary changes for short periods, but aspiration is a continuing source of learning and growth.

Vision spreads because of a reinforcing process of increasing clarity, enthusiasm, communication and commitment. As people talk, the vision grows clearer, enthusiasm for its benefit builds and the vision starts to spread in a reinforcing spiral of communication and excitement. Enthusiasm can also be reinforced by early successes in pursuing the vision.

If the reinforcing process operates unfettered, it leads to continuing growth in clarity and shared commitment toward the vision, among increasing numbers of people. But any of a variety of limiting factors can come into play to slow down this virtuous cycle.

The visioning process can wither if, as more people get involved, the diversity of views dissipates focus and generates unmanageable conflicts. People see different ideal futures. Must those who do not agree immediately with the emerging shared vision change their views? Do they conclude that the vision is “set in stone” and no longer influenceable? Do they feel that their own visions even matter? If the answer to any of these questions is “yes,” the enrolling process can grind to a halt with a wave of increasing polarization.

This is a classic “limits to growth” structure, where the reinforcing process of growing enthusiasm for the vision interacts with a “balancing process” that limits the spread of the vision, due to increasing diversity and polarization.

In limits to growth structures, leverage usually lies in understanding the “limiting factor,” the implicit goal or norm that drives the balancing feedback process. In this case, that limiting factor is the ability (or inability) to inquire into diverse visions in such a way that deeper, common visions emerge.

The visioning process is a special type of inquiry process. It is an inquiry into the future we truly seek to create. If it becomes a pure advocacy process, it will result in compliance, at best, not commitment. Approaching visioning as an inquiry process does not mean that we have to give up our views. On the contrary, visions need strong advocates. But advocates who can also inquire into others’ visions open the possibility for the vision to evolve, to become “larger” than our individual visions.

Visions can die because people become discouraged by the apparent difficulty in converting them into reality. As clarity about the nature of the vision increases, so does the awareness of the gap between the vision and current reality. People become disheartened, uncertain, or even cynical, leading to a decline in enthusiasm.

In this structure, the limiting factor is the capacity of people in the organization to “hold” creative tension, the central principle of personal mastery. This is why personal mastery is the “bedrock” for developing shared vision – organizations that do not encourage personal mastery find it very difficult to foster sustained commitment to a lofty vision.

Emerging visions can also die because people get overwhelmed by the demands of current reality and lose their focus on the vision. The limiting factor becomes the time and energy to focus on a vision.

In this case, the leverage must lie in either in finding ways to focus less time and effort on fighting crises and managing current reality, or to break off those pursuing the new vision from those responsible for handling “current reality.”

A vision can die if people forget their connection to one another. This is one of the reasons that approaching visioning as a joint inquiry is so important. The spirit of connection is fragile. It is undermined whenever we lose our respect for one another and for each other’s views. We then split into insiders and outsiders – those who are “true believers” in the vision and those who are not.

The limiting factor when people begin proselytizing and lose their sense of relationship can be time or skills. If there is great urgency to “sign up” for the new vision, people may just not perceive that there is time to really talk and listen to one another. This will be especially likely if people are also unskilled in how to have such a conversation, how to share their vision in such a way that they are not proselytizing, but are encouraging others to reflect on their own visions.

Vision paints the picture of what we want to create. Systems thinking reveals how we have created what we currently have.

Team learning

Team learning is the process of aligning and developing the capacity of a team to create the results its members truly desire. It builds on the discipline of developing a shared vision. It also builds on personal mastery, for talented teams are made up of talented individuals.

Individual learning, at some level, is irrelevant for organizational learning. Teams exist to tap the potential for many minds to be more intelligent than one mind. But there are powerful forces at work in organizations that tend to make the intelligence of the team less than, not greater than, the intelligence of individual team members. Many of these forces are within the direct control of the team members. Outstanding teams develop “operational trust,” where each team member remains conscious of other team members and can be counted on to act in ways that complement each other’s actions.

The discipline of team learning involves mastering the practices of dialogue and discussion. In dialogue, there is the free and creative exploration of complex and subtle issues, a deep “listening” to one another and suspension of one’s own views. In discussion, different views are presented and defended. There is a search for the best view to support decisions that must be made at this time. Dialogue and discussion are potentially complementary, but most teams lack the ability to distinguish between the two and tend to move consciously between them.

Team learning also involves learning how to deal creatively with the powerful forces opposing productive dialogue and discussion in working teams. Chief among these are “defensive routines,” habitual ways of interacting that protect others and us from threat or embarrassment, but which also prevent us from learning.

In dialogue, a group explores complex difficult issues from many points of view. Individuals communicate their assumptions freely. The result is a free exploration that brings to the surface the full depth of people’s experience and thought, and yet can move beyond their individual views.

“The purpose of dialogue,” “is to reveal the incoherence in our thought.” There are three types of incoherence. “Thought denies that it is participative.” Thought stops tracking reality and “just goes, like a program.” And thought establishes its own standard of reference for fixing problems, which it contributed to creating in the first place.

In dialogue, people become observers of their own thinking. Through dialogue, people can help each other to become aware of the incoherence in each other’s thoughts. In this way, the collective thought becomes more and more coherent.

The difference between great teams and mediocre teams lies in how they face conflict and deal with the defensiveness that invariably surrounds conflict. Defensive routines form a sort of

protective shell around our deepest assumptions. These routines defend us against pain, but also keep us from learning about the causes of the pain. The source of defensive routines, is not belief in our views or desire to preserve social relations, as we might tell ourselves, but fear of exposing the thinking that lies behind our views. The more effective defensive routines are, the more effectively they cover up underlying problems, the less effectively these problems are faced, and the worse the problems tend to become.

By inquiring effectively into the causes of the problems at hand – that is, by inquiring in such a way as to reveal your own assumptions and reasoning, make them open to influence, and encourage others to do likewise – defensive routines are less likely to come into play. What is required, not surprisingly, is a vision of what we really want, both in terms of business results and how we want to work together, and a ruthless commitment to telling the truth about our “current reality.” In this sense, team learning and building a shared vision are sister disciplines that go together to build “creative tension” in a team.

It is not the absence of defensiveness that characterizes learning teams but the way defensiveness is faced. A team committed to learning must be committed not only to telling the truth about what’s going on “out there,” in their business reality, but also about what’s going on “in here,” within the team itself. To see reality more clearly, we must also see our strategies for obscuring reality.

This situation is unlikely to improve until teams share a new language for describing complexity. Financial accounting, can deal with detail complexity not dynamic complexity. It offers “snapshots” of the financial conditions of a business, but it does not describe how those conditions were created. Tools and frameworks such as competitive analysis, “Total Quality,” and scenario methods deal with dynamic complexity but not very well.

When the systems archetypes are used in conversations about complex and potentially conflictual management issues, reliably, they “objectify” the conversation. The conversation becomes about “the structure,” the systemic forces at play, not about personalities and leadership styles. Difficult questions can be raised in a way that does not carry innuendos of management incompetence or implied criticism. Rather, people are asking, “Is the burden shifting to selling to current customers versus broadening our customer base?” “How would we know if it was?” This, of course, is precisely the benefit of a language for complexity. It makes it easier to discuss complex issues objectively and dispassionately.

Openness

As Senge puts it, a “political environment” is one in which “who” is more important than “what.” If the boss proposes an idea, the idea gets taken seriously. If someone else proposes a new idea, it is ignored. There are always “winners” and “losers,” people who are building their power and people who are losing power. Power is concentrated and it is wielded arbitrarily. One person can determine another’s fate, and there is no recourse to that determination. The wielding of arbitrary power over others is the essence of authoritarianism. So, in that sense, a political environment is an authoritarian environment, even if those possessing the power are not in the official position of authority.

If people are motivated only by self-interest, then an organization automatically develops a highly political style, with the result that people must continually look out for their self-interest in order to survive.

There are two different aspects of openness – participative and reflective. Unless the two are integrated, the behavior of “being open” will not produce real openness.

Participative openness, the freedom to speak one’s mind, is the most commonly recognized aspect of openness. The philosophy of “participative management,” involving people more in decision making, is widely espoused. Participative openness may lead to more “buy-in” on certain decisions, but by itself it will rarely lead to better quality decisions because it does not influence the thinking behind people’s positions. In terms of personal mastery, it focuses purely on the “means” or process of interacting, not on the “results” of that interaction.

“Reflective openness” leads to people looking inward. It starts with the willingness to challenge our own thinking, to recognize that any certainty we ever have is, at best, a hypothesis about the world. No matter how compelling it may be, no matter how fond we are of “our idea,” it is always subject to test and improvement. Reflective openness lies in the attitude, “I may be wrong and the other person may be right.” It involves not just examining our own ideas, but examining each other’s thinking.

Local needs

Helplessness, the belief that we cannot influence the circumstances under which we live, undermines the incentive to learn. So does the belief that someone somewhere else dictates our actions. Conversely, if we know our fate is in our own hands, we will keep learning.

Learning organizations are typically “localized” organizations, extending the maximum degree of authority and power as far from the “top” or corporate center as possible. Localness means moving decisions down the organizational hierarchy; designing business units where, to the greatest degree possible, local decision makers confront the full range of issues and dilemmas intrinsic in growing and sustaining any business enterprise. Localness means unleashing people’s commitment by giving them the freedom to act, to try out their own ideas and be responsible for producing results.

To be effective, localness must encourage risk taking among local managers. But to encourage risk taking is to practice forgiveness. Real forgiveness includes “forgive” and “forget.” Sometimes, organizations will “forgive” in the sense of not firing someone if he makes a mistake, but the screw up will always be hanging over the offender’s head. Real forgiveness includes “reconciliation,” mending the relationships that may have been hurt by the mistake.

While traditional organizations require management systems that control people’s behavior, learning organizations invest in improving the quality of thinking, the capacity for reflection and team learning, and the ability to develop a shared vision and a shared understanding of complex business issues. It is these capabilities that will allow learning organizations to be both more locally controlled and more well coordinated than their hierarchical predecessors.

Designing the organization’s learning processes is a unique role which cannot be delegated. It cannot be done by local managers because local managers are too involved in running their businesses. Local managers do not have the perspective to see the major, long-term issues and forces that will shape how the business evolves.

Work life balance

The learning organization must support personal mastery in all aspects of life. It cannot foster a shared vision without calling forth personal vision. Personal vision is always multifaceted. It

always includes deeply felt desires for personal, professional, organizational, and family lives. The artificial boundary between work and family is anathema to systems thinking. There is a natural connection between a person's work life and all other aspects of life. We like only one life, but for a long time our organizations have operated as if this simple fact could be ignored, as if we had two separate lives.

Ironically, conflicts between work and family may be one of the primary ways through which traditional organizations limit their effectiveness and ability to learn. By fostering such conflicts, they distract and unempower their members often to a far greater degree than they realize. Moreover, they fail to exploit a potential synergy that can exist between learning organizations, learning individuals, and learning families.

In the past, personal interests of employees were their own concern. The corporation wanted only "an honest day's work for an honest day's pay." In the learning organization, the boundaries between what is personal and what is organizational are intentionally blurred. The organization must support the full development of each employee.

The conflict between work and home is not just a conflict over time, but over values. All the habits that an executive learns in an authoritarian organization are exactly the habits, that make them unsuccessful parents. An executive cannot build up a child's self-esteem at home if he is accustomed to tearing down other people's self-esteem at the office. The values and habits learned by practicing the five disciplines of a learning organization serve to nurture the family as well as the business. Not only is being a good parent a training ground for being a learning manager, but being a learning manager is also good preparation for parenting. The conflict between work and home diminishes dramatically when the organization fosters values in alignment with people's own core values that have equal meaning at work and at home.

Microworlds

Human beings learn best through first hand experience. Microworlds enable managers and management teams to begin "learning through doing" about their most important systemic issues. In particular, microworlds "compress time and space" so that it becomes possible to experiment and to learn when the consequences of our decisions are in the future and in distant parts of the organization.

Lying behind all strategies are assumptions, which often remain implicit and untested. Frequently, these assumptions have internal contradictions. When they do, the strategy also has internal contradictions, which make it difficult or impossible to implement. One benefit of microworlds is bringing these assumptions into the open and discovering these inconsistencies.

Some of the most important microworlds help teams mired in conflicting views of complex issues. Here, microworlds can be crucial in bringing to the surface different assumptions and discovering how they can be interrelated in a large undertaking. Often, our linear language and defensive ways of presenting our thinking lead to perceiving false dichotomies and irreconcilable differences. Sometimes, the microworld allows us to "see the elephant" for the first time.

The unique power of microworlds lies in surfacing hidden assumptions, especially those lying behind key policies and strategies, discovering their inconsistency and incompleteness, and developing new, more systematic hypotheses for improving the real system.

In microworlds, the pace of action can be slowed down or speeded up. Phenomena that stretch out over many years can be compressed to see more clearly the long-term consequences of decisions. The interactions among members of the team can also be slowed down, so that they can see subtle ways in which they shut down inquiry or discourage testing of different views.

In microworlds, managers can learn about the consequences of actions that occur in distant parts of the system from where actions are taken. A microworld is a controlled environment, in which experiments can ask “What if? Questions about outside factors. Microworlds also let us bring in potential outside factors that have not yet taken place in reality – for example. Microworlds let teams experiment with new policies, strategies, and learning skills. Actions that cannot be reversed in real business can be redone countless times in the microworld.

Microworld experiments reveal just how non-reflective most managers are. Despite the ready access to information and controlled experimentation in the computer environment, managers tend to jump from one strategy to another without ever stating clearly their assumptions and without ever analyzing why strategies produce disappointing results.

The business practices of most firms are firmly “anchored” to standard industry practices. By contrast, systems thinking and microworlds offer a new way of assessing policy and strategy. They lead to “theories” of critical business dynamics which can then clarify the implications of alternative policies and strategies.

In the learning organization of the future, microworlds will be as common as business meetings are in today’s organizations. And, just as business meetings reinforce today’s focus on coping with present reality, microworlds will reinforce a focus on creating alternative future realities.

The leader’s new work

Learning organizations demand a new view of leadership. The traditional view of leadership is based on assumptions of people’s powerlessness, their lack of personal vision and inability to master the forces of change, deficits which can be remedied only by a few great leaders.

The new view of leadership in learning organizations centers on subtler and more important tasks. In a learning organization, leaders are designers, stewards, and teachers. They are responsible for building organizations where people expand their capability to understand complexity, clarify vision, and improve shared mental models – that is, they are responsible for learning.

The neglected leadership role is the designer. Little credit goes to the designer. The functions of design are rarely visible. They take place behind the scenes. The consequences that appear today are the result of work done in the past, and work today will show its benefits far in the future. Those who aspire to lead out of a desire to control, or gain fame, or simply to be “at the center of the action” will find little to attract them to the quiet design work of leadership.

Design is, by its nature, an integrative science. The essence of design is seeing how the parts fit together to perform as a whole. The crucial design work for leaders of learning organizations is also about integration - integrating vision, values, and purpose, systems thinking, and mental models – or more broadly, integrating all the learning disciplines. It is the synergy of the disciplines that can propel an organization to major breakthroughs in learning.

In essence, the task of the leader is designing the learning processes whereby people throughout the organization can deal effectively with the critical issues they face and develop their mastery in the learning disciplines.

The leader's creative tension is not anxiety. A leader's story, sense of purpose, values and vision establish the direction and target. His relentless commitment to the truth and inquiry into the forces underlying current reality continually highlight the gaps between reality and the vision. Leaders generate and manage this creative tension not just in themselves but in an entire organization. This is how they energize an organization. That is their basic job. That is why they exist.