

The Five Learning Disciplines From Individual to Organizational Learning

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*To practice a discipline is to be a lifelong learner. You 'never arrive.'
The more you learn, the more acutely aware you become of your ignorance.*
Peter Senge

In his seminal book on the learning organization concept, *The Fifth Discipline: The Art & Practice of the Learning Organization* (1990), Peter Senge lays the foundation from which organizations have the opportunity to grow and prosper. He states upfront that he assumes no credit for inventing the five disciplines; they are the product of the work done by hundreds of people over many years. He has devoted, however, many years to studying these disciplines.

Senge is the Director of the Center for Organizational Learning at MIT's Sloan School for Management and the founder of the Society for Organizational Learning. He has introduced his work to thousands of managers in dozens of organizations throughout North America and Europe. He continues to be seen as one of the world's leading thinkers on organizational learning.¹

This article examines Senge's work, drawing principally from his book *The Fifth Discipline*, as well as from *The Fifth Discipline Fieldbook* (1994). Before delving into the five disciplines and what they mean for learning and leadership in organizations, we'll begin with a look at the seven learning disabilities. Understanding what these disabilities represent, and the impact they have on how organizations function, is critical to developing a more complete picture of the organizational learning process.

The 7 Learning Disabilities

Most organizations, not surprisingly, have difficulty learning. To address this problem requires first identifying the seven learning disabilities:

1. *I am my position.* Because we are expected to be loyal to our jobs, we tend to confuse them with our own identities. As Senge explains: 'When people in organizations focus only on their position, they have little sense of responsibility for the results produced when all positions interact.'

2. *The Enemy is Out There.* We have a tendency to blame others when something goes wrong, whether it is another unit in the organization or a competitor.

3. *The Illusion of Taking Charge.* We hear all too often that we must be 'pro-active,' taking action to make something happen. However, pro-activeness can really be reactivity in disguise. Senge

¹ As a continuous learner, Senge continues to explore new areas. His new book delves into sustainability and has received very positive reviews. *The Necessary Revolution: How Individuals and Organizations Are Working Together to Create a Sustainable World*. New York: Doubleday, 2008

sees ‘true pro-activeness’ as coming from our ability to see how we contribute to our own problems. In essence, it is the outcome of how we think, not how we react emotionally.

4. *The Fixation on Events.* The ongoing discussions and conversations in organizations focus typically on events, those ‘urgent’ day-to-day issues that grab our attention. But the real threats to our survival are not events but rather the *slow, gradual processes* that creep up on us. We need to move away from short-term thinking to long-term thinking.

5. *The Boiled Frog.* This parable states that if you place a frog in boiling water it will hop out immediately. If you place it in cool water and gradually turn up the heat, the frog will remain in the pot, growing groggier until it cooks to death. What we learn from this parable is that if we wish to see the slow, gradual processes, we must *slow down* and pay attention to the subtle as well as the dramatic.

6. *The Delusion of Learning from Experience.* We learn best from direct experience. In organizations, however, we usually don’t experience directly the consequences of our decisions. A major underlying reason for this is the functional silos that exist. These silos impede the flow of communication among people. The organization’s ability to analyze complex problems is subsequently greatly weakened.

7. *The Myth of the Management Team.* This reflects the desire for management to appear as a cohesive group that is pulling in the same direction. The reality is that in most management ‘teams’ the need to uphold their image means that dissent is frowned upon and that joint decisions are ‘watered-down compromises.’ As Harvard’s Chris Argyris has discovered through his research (and referred to frequently by Senge), most organizations reward those who promote senior management’s views. Those who pose probing questions or who ‘rock the boat’ are penalized.

This brief look at the seven learning disabilities helps set the context for an exploration of the five disciplines. One key point needing emphasis is that these disciplines are all interrelated. They do not stand independently. And this is the beauty of understanding the five disciplines: because they are interrelated, they help us make sense of the complexities and turbulence inside and outside our organizations.

Our starting point is what Senge calls the cornerstone of the five disciplines: *systems thinking*. It underlies the other four disciplines: *personal mastery, mental models, shared vision, and team learning*.

The only prediction that will hold true is that no predictions will hold true.

Charles Handy

Systems Thinking

Systems thinking deals with seeing ‘wholes,’ or what some would say ‘the big picture.’ It’s a discipline that enables us to see interrelationships and patterns of change, as opposed to snapshots of situations. It helps us to determine cause and effect, an important point because it is never influenced in just one direction.

An important element of systems thinking is that of feedback and the role it plays in cause and effect. There are two types of feedback processes: *reinforcing* and *balancing*. An example of reinforcing feedback is a manager who does not fully appreciate the impact her expectations have on an employee's performance. If she believes that the employee has potential, she will give him extra attention. In contrast, if she believes that an employee will be a poor performer, he will receive less attention.

This type of behavior by a manager produces a self-fulfilling prophecy. In the first example, the employee will grow and develop, while in the second he will languish. In the latter example, a downward spiral can actually begin, one in which the interaction between the manager and the employee deteriorates, the consequence of mutual diminishing expectations.

The second type of feedback is *balancing*. These processes abound in organizations and are difficult to address. For example, we are all familiar with the heroes who work long hours. They often complain about having to work on weekends. And it is often these people who advance in the organization because working long hours is considered a virtue and an informal requirement to advancement.

Some organizations have attempted to eliminate this practice using formal communication. However, what they have found is that despite the official line from the CEO and other senior managers, the informal rule is that working long hours is still valued. Staff see management doing it, so it must be right.

When managers attempt to implement a change, they often find themselves caught in a balancing process. They are surprised to discover resistance by staff. Managers must therefore model what it is they're advocating. In the case of discouraging staff from working long hours, managers must practice what they are preaching. As Senge states: 'Whenever there is resistance to change, you can count on there being one or more hidden balancing processes.'

These norms, in fact, are imbedded in the power relationships in the organization. The challenge facing managers is to be able to identify the source of the resistance and to focus on these norms and power relationships. Pushing harder against the resistance is futile because it only strengthens it further.

In a true learning organization, managers come to understand the need to see the 'whole' and the interrelationships that make an organization what it is. They are then functioning as systems thinkers. Senge sees systems thinking as an art, in which the individual is able to see through complex issues to the underlying forces. Mastering systems thinking means '...seeing patterns where others only see events and forces to react to. Seeing the forest as well as the trees is a fundamental problem that plagues all firms.'

Senge speaks of what he calls *The Primacy of the Whole*. This refers to the concept that relationships are more fundamental than things, and that 'wholes' are of a higher order than 'parts.' Managers are conditioned to see their organizations as '... things rather than as patterns of interaction.' They look for solutions that will 'fix' problems, instead of searching out the underlying causes. The consequence is the '... endless spiral of superficial quick fixes, worsening difficulties in the long run and an ever-deepening sense of powerlessness.'

While organizations learn through their people, this does not guarantee that organizational learning will result. This takes us to Senge's second discipline.

The ability to perceive or think differently is more important than the knowledge gained.

David Bohm

Personal Mastery

Personal mastery is the term used by Senge and his followers to describe the discipline of personal growth and learning. People who possess high degrees of personal mastery are continually increasing their abilities to create the results they seek. Their never-ending quests for self-improvement and self-discovery underlie the spirit of the learning organization.

When we speak of personal mastery, it's important to be clear that we are not just referring to skills and competencies. Personal mastery includes spiritual growth and approaching life as a creative work. It means that we continually clarify what is important to us and continually learn how to see the real world more clearly.

People who possess a high degree of personal mastery share some basic traits. First, they have a strong sense of purpose that supports their personal visions and goals. Second, they are individuals who work with change, not against it. Third, they feel connected to others and to life itself. And perhaps most importantly, they live in a continual learning mode.

Systems thinking brings out the more subtle aspects of personal mastery, for example, combining reason and intuition, seeing the interconnectedness of events in the world, compassion, and commitment to the whole. To embark on a journey of personal growth means that one has made a *conscious choice*. It is impossible to force an individual to engage in personal growth. As Senge says, 'It is guaranteed to backfire.'

There is a key lesson here for managers: you can't push against a string. People must *want* to do change. Managers help create the environment, which includes *modelling* the desired behaviors.

Senge explains that managers must work daily at creating a climate that promotes personal mastery. They must, above all, establish an environment in which people feel *safe* to create their personal visions, where they can challenge the status quo, and where inquiry and commitment to the truth are the norm.

If managers live this on a daily basis, personal mastery will be strengthened in two major ways. First, it will reinforce the notion that personal growth is indeed truly valued in the organization. And second, it will provide a sort of 'on-the-job-training,' an essential part of personal mastery. The manager who is serious about her own quest for personal growth will send a powerful message to her followers.

Personal mastery is seen as one of the two individual disciplines. The other one is mental models. However, it's important to remember that the five disciplines are interrelated. In the case of mental

models, they are also intertwined with systems thinking because they deal with how we view the world.

People don't grow old. When they stop growing, they become old.

Anonymous

Mental Models

Each of us carries our own sets of assumptions, views, and prejudices that affect how we interact with others. And while we often attempt to deny certain views or prejudices we hold, it's difficult to maintain this stance when our actions are not consistent with our words. Chris Argyris explains: "Although people do not always behave congruently with their espoused theories (what they say), they do behave congruently with their theories-in-use (their mental models)." Our mental models strongly affect what we *do* because they affect what we *see*. As Albert Einstein put it: "Our theories determine what we measure."

From a management perspective, mental models are extremely important because of the associated consequences, whether good or bad. In fact, it is difficult, if not impossible, to develop systems thinking if one's mental models are ingrained in past experiences and beliefs. For example, how can a manager deal effectively with an interpersonal problem in his unit if he has certain opinions about an individual? How can a manager bring her followers on board with a major change in the organization if she is unwilling to understand the underlying causes for the change and the many interdependencies involved?

To be an effective systems thinker requires the discipline of mental models. These two disciplines fit together naturally. Systems thinking concentrates on how to modify assumptions in order to show the true causes of problems. Mental models, in contrast, look at revealing our hidden assumptions.

For managers, it becomes essential that they take the time to reflect on their existing mental models until their assumptions and beliefs are brought out into the open. Until then, their mental models will not change and it is pointless to attempt to engage in systems thinking.

To be a successful manager in the 21st century...calls for a new mental model of manager, one suited to a world of chaos.

Toby J. Tetenbaum

Shared Vision

When we talk about shared vision, we don't mean an idea. Instead, we're referring to a force that is in peoples' hearts. Senge states: "When people truly share a vision they are connected, bound together by a common aspiration. Personal visions derive their power from an individual's deep caring for the vision." Shared vision is an essential component of a learning organization because it provides the focus and energy for learning. The underlying force is the desire by people to create and accomplish something. And the 'bedrock,' as Senge calls it, for developing shared visions is personal mastery.

Shared vision emerge from personal visions, and this is how energy is formed and commitment created. Managers must therefore walk a fine line when they express their own visions. To master the discipline of building shared vision requires that managers understand that visions are not announced from the top or that they come from strategic planning processes.

The traditional approach to creating a vision for the organization has largely failed in most organizations because employees have been unable to connect with the vision developed by management. In other words, the vision that is communicated to employees has not built on peoples' personal visions. They are not *enrolled* in the vision. The consequence has typically been apathy and a lack of energy on the part of people.

Of course visions can, and indeed should, be conceived by senior managers. But senior management must realize that their vision cannot be considered 'shared' until others in the organization feel part of it. Their personal visions must connect with the larger vision.

Building shared vision requires daily effort by managers. It must be a central part of their work. And they must remember that the visions they develop are still their *personal visions*. As Senge asserts: 'Just because they occupy a position of leadership does not mean that their personal visions are *automatically* the organization's vision.'

Creating shared vision goes hand-in-hand with systems thinking. The latter enables people to understand what and how the organization has created. Vision portrays what people want to create. Because most managers don't experience that they are contributing to their current reality, they have great difficulty in seeing how they can contribute to changing it. They see their problems as being caused by the system or by external factors.

This attitude, as Senge explains, "...can be elusive to pin down because in many organizations the belief 'We cannot create our own future' is so threatening that it can never be acknowledged." To be a 'good' manager (or leader) means that you are in charge of your own future. A manager (or non-manager for that matter) who openly questions the organization's ability to accomplish what it is attempting is quickly labeled as being not on board or as rocking the boat. The underlying cause for this occurrence is that organizations tend to be dominated by linear thinkers instead of systems thinkers.

This leads us to the final discipline: *team learning*. As we'll see, team learning is all about 'alignment' and getting people working in synch with one another. And this is where creating shared vision can be a powerful force.

The medium of leadership is the energy of other people.

Dick Richards

Team Learning

Team learning builds on the discipline of personal mastery. It is a process that encompasses aligning and developing the capacity of a team to achieve the goals that its members *truly* want. While individual learning at one level is important, it is irrelevant at another level. Individuals may

learn but the organization as a whole does not. There is no *organizational learning*. Teams become, therefore, the essential ingredient for learning, a ‘microcosm’ for learning as Senge calls it.

There are three key components of team learning.

1. Teams must probe and explore complex issues, drawing on the talents, knowledge, and experiences of one another.
2. They must work in concert, coordinating their efforts and communicating openly and closely. *Trust* is essential since members must be able to rely on one another.
3. Teams must interact with each other so that they can share what they learn. Senge invented the expression *Nested Teams* as a way to express this interaction. Just as there must be interdependency *within* a team, so too must there be interdependency *among* teams in an organization.

Team learning must therefore be seen as being a collective discipline. To say that ‘I’ as an individual am mastering team learning is irrelevant. Team learning involves mastering the two primary ways that teams communicate: dialogue and discussion. By dialogue, Senge means ‘deep listening’ and the free exploration of ideas. (Stephen Covey uses the expression *emphatic listening*). Discussion, on the other hand, refers to searching for the best view to support decisions once all views have all been presented.

For a team to grow and develop, and to be effective, it’s necessary that conflict be present. This notion may no doubt surprise some people, but unless a team’s members disagree at times, the team will not learn. To think creatively, there must be the free flow of conflicting ideas.

Of course, the team must know how to use disagreements productively. Conflict becomes then a part of the continuing dialogue among the team’s members. As Senge explains: “...the difference between great teams and mediocre teams lies in how they face conflict and deal with the defensiveness that invariably surrounds conflict.”

The issue of when and how to use conflict productively is one that escapes most organizations. The consequence is the regular use of defensive routines. To admit that one doesn’t know the answer to a question or problem is to reveal one’s supposed incompetence. This has particular applications to managers because they’re expected to know everything that is going on in the organization. This becomes part of managers’ mental models. Senge states: “Those that reach senior positions are masters at appearing to know what is going on, and those intent on reaching such positions learn early on to develop an air of confident knowledge.”

When managers internalize this mental model, they create two problems. First, to maintain the belief that they have the answers they must shut themselves off from inquiry from their subordinates. They refuse to consider alternative views, especially if they appear provocative.

The second problem they create for themselves is that they sustain their ignorance. To keep up the facade they become very skilled at being defensive. After all, they wish to be seen as being effective decision makers.

Through his work, Chris Argyris has found that such defensive behavior becomes an ingrained part of an organization's culture. As he states: "...We are the carriers of defensive routines, and organizations are the hosts. Once organizations have been infected, they too become carriers."

Organizational learning is obviously severely impeded in such a culture. This is underscored especially when teams engage in defensive routines, which block their energy and prevent them from working towards their shared visions.

The more that defensive routines take root in a team, and more broadly the organization, the more they hide the underlying problems. And in turn, the less effectively these problems are addressed, the worse the problems become. As Argyris puts it: "...defensive routines are 'self-sealing' – they obscure their own existence."

All is not lost, however. A team that is committed to the truth will find ways to expose and address its defensiveness. The same applies to a manager who has the courage to self-disclose and examine his mental models to determine where defensiveness may be hidden. This in turn creates energy and the willingness to explore new ideas. Openness and dialogue then become the norm in the organization.

*If dialogue articulates a unique vision of team learning,
reflection and inquiry skills may prove essential to realizing that vision.*
Peter Senge

A Final Note

Senge notes that the five disciplines may also be called the *leadership* disciplines. As he asserts: "Those who excel in these areas will be the natural leaders of learning organizations....It is impossible to reduce natural leadership to a set of skills or competencies. Ultimately, people follow people who believe in something and have the abilities to achieve results in the service of those beliefs.... Who are the natural leaders of learning organizations? They are the learners."

When Senge wrote *The Fifth Discipline* his intention was to portray what a learning organization could look like and how it could be created. He did not set out to convince people they should build a learning organization. By presenting this concept to people, he is offering them a choice. He states, however, "The choice, as is always the case, is yours."

*The journey in between what you once were and who you
are now becoming is where the dance of life really takes place.*
Barbara DeAngelis