The Power of Learning Organizations

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Abstract

A learning organization has the capability to uniquely foster continuous learning among its members. Peter Senge of MIT, in his best-selling book The Fifth Discipline (1991) comprehensively elaborates the art and practices of a learning organization. Based on his book and various works of several other authors, this article synthesizes the different aspects of a learning organization. Several examples are utilized to demonstrate that learning organization concepts are practical and not unrealistic as some authors and practitioners believe. It is important for business schools to teach and practice the noble principles of learning organizations today since the importance of ethics, values and principles in decision making has been accepted as extremely important for organizations worldwide.

Keywords: *Personal mastery, Mental models, Shared vision, Team learning, Systems thinking*

Introduction

To most of us, universities are learning organizations, organizations where knowledge is created and disseminated, where students and teachers are engaged in learning and gaining knowledge. However, if we use the definition of a learning organization by MIT's Peter Senge, many of our universities have become woefully dyslexic. Although most universities provide excellent learning environments for their students, they seldom encourage their faculty and staff to *create a learning organization*. Senge defines learning organizations as "organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to *learn together*." Today, it is hard to find universities that fit this noble definition. However, several leading manufacturing firms, service businesses, and not-for-profit organizations like hospitals and even government institutions have made a commitment to tread the arduous yet gratifying path of creating a learning organization.

A learning organization has the capacity to create its future and consequently to *lead* change. In addition to adaptive (or survival) learning, these organizations indulge in generative learning, learning that enhances proactive thinking and the employees' capacity to *create* the organization's future. In a learning organization, emphasis is placed on continuously encouraging the betterment of knowledge, skills and *attitudes* of employees throughout the organization.

Change is the only *constant* for today's organizations. The ever-increasing rate of technological changes combined with the globalization of businesses in the past decade has elevated this statement from being just a cliché. Quality management guru W. Edwards Deming (1982), in his seminars to business executives, used to amusingly yet pointedly remark "it is not necessary to change; survival is not mandatory." Executives and managers in all sizes and sectors of organizations are constantly seeking tools for themselves and their employees to manage and lead change. They typically stumble upon the hottest management techniques and utilize them to achieve few evanescent successes. However, the concepts of the learning organization permeate and transcend several proven management philosophies and theories. And when properly employed, they can guarantee lasting success and "happiness" for the organization's employees, managers, owners and customers.

It is important for universities to practice what they preach when it comes to learning organizations in order for the concept to evolve even further and for the small section of practitioners to realize that learning organizations do not represent Utopia. Several successful organizations in different periods of

time have practiced learning organization principles. They include such diverse world-class organizations such as VISA, Shell Oil, Hanover Insurance, Analog Devices, Ford (Lincoln Continental), etc. Leaders like Bill O'Brien of Hanover and Ray Stata of Analog Devices helped their companies become learning organizations. Although their organizations are already practicing many aspects of learning organizations, Narayana Murthy of Infosys and Herb Kelleher of Southwest Airlines are examples of individuals in perfect positions to consciously elevate their organizations into learning organizations.

Just like for the growth of a plant there is need for an appropriate mix of soil, water and sunshine, there are three ingredients for learning and change initiatives to be successful. Senge identified in his book The Dance of Change (2001) that change and learning efforts work when a) they matter to individuals (assuring personal results), b) when one's colleagues take it seriously (building networks of committed people) *and* c) when they result in measurable business success. Practicing learning organization principles provides this ideal environment for instituting positive change in today's global organizations.

The Learning Organization and The Fifth Discipline

Several authors have propounded the concepts of a learning organization in the last few decades. However, the most popular work on learning organizations has been *The Fifth Discipline* by Peter Senge (1994). Senge has assimilated concepts from several fields including systems dynamics, physics, psychology, sociology, philosophy, and management and has presented a comprehensive and practical framework for creating a learning organization. Senge's five disciplines of a learning organization are as follows. Each discipline is explained in detail subsequently:

!*Personal mastery*--continuously clarifying and deepening one's *real* personal vision, understanding one's current reality and generating a creative tension to realize the personal vision

!*Mental models*--surfacing, testing and

improving deeply ingrained assumptions and generalizations about our world- both business and personal

!*Shared vision*--discovering a shared picture of the future of the organization/team that will foster genuine commitment and enrollment rather than mere compliance

!*Team learning*--developing the ability for "dialogue" in which team members are in a mode that embraces the collective good and refrains from individual self-interest

!*Systems thinking*--the discipline that underlies the other four. It brings the concept of interconnectedness into organizational context

These five disciplines, when properly understood and practiced, can help an organization to become a true learning organization.

An Analogy of the Human Body

A simple analogy of the five disciplines is the human body. Different parts of the human anatomy can be used to depict the five disciplines of a learning organization.
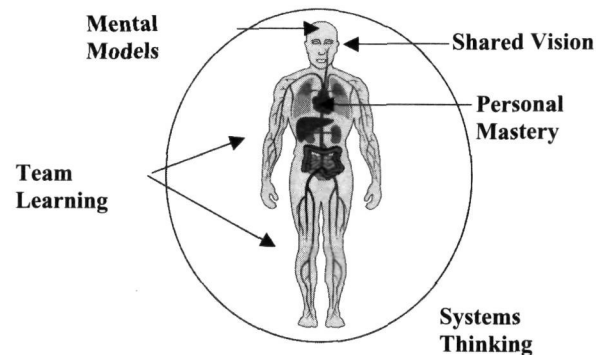
i) The *heart* represents the discipline of *personal mastery*. Personal Mastery is the discipline of clarifying what is truly important to one self. Also, the heart emanates enthusiasm and loyaltytwo attitudes that individuals bring to their jobs voluntarily. Employers cannot require these two of their employees on a consistent basis. The architects of learning organizations are individuals that are dedicated to high levels of personal mastery. ii) The *brain/mind* represents the discipline of *mental models*. The skills of reflection and inquiry that form the foundation of testing and

improving mental models are a function of the brain/mind. iii) The *eyes* represent the discipline of *shared vision*. Human beings have two eyes but the light that emanates from them both is one resulting in an individual's single physical vision. Similarly, a learning organization's members together co-create a single shared vision. iv) The *hands and legs*, the primary motor organs of the body, represent the discipline of *team learning*. The organization comprised of individuals with high levels of personal mastery, improved mental models and shared vision can reach their destinations (vision) only with the help of the motor organs of a learning organization--team learning. v) The *entire body* is representative of the discipline of *systems thinking*. The interconnectedness of the different organs and systems of the body exemplify the need for systems thinking in organizations, which are similar to organisms in several respects.

Next, we look at the five disciplines of the learning organization in some detail. We will place particular emphasis on personal mastery since individuals are the most important building blocks of a learning organization.

Personal Mastery

Personal Mastery is the first discipline and the spiritual foundation of a learning organization. It is difficult to explain what personal mastery is but it is relatively easier to discuss the characteristics of an individual who exhibits personal mastery, and what it can do for the individual and his/her team and organization.

Personal mastery helps individuals to utilize *work* as a platform for personal growth. Personal mastery guides individuals in making a paradigm shift from working for a traditional organization to being an integral part of developing a learning organization. The discipline of personal mastery, in the words of Stephen Covey (1989), helps individuals to move *from* the state of dependence *through* the state of independence *to* the state of interdependence. It helps individuals to move up the humility ladder of pronouns from "you" and "I" to "we" and "us." In the language of Transactional Analysis, personal mastery helps individuals to minimize their "child" and

"parent" roles while maximizing the role of the "adult." In the words of TA expert Tom Harris (1969), personal mastery is the state of "I'm OK, you're OK." Covey, in his best-selling 7 Habits book, clearly differentiates an individual's public victories and secondary greatness from private victories and primary greatness. The former two are a function of personality and public image and can result in short-term glory while the latter two are a function of good character and generally result in lasting happiness. Unfortunately, most managers today focus on public victories. It is important for learning organizations to foster managers and leaders that cherish primary greatness and private victories. Private victories and primary greatness cannot be achieved without ardent practice of personal mastery.

Jim Collins (2001) in his best selling book *Good to Great* identified *Level 5 Leadership* as one of the most important ingredients of organizations that have risen from good to great. Level 5 leaders are the ones who demonstrate the almost paradoxical blend of professional will and personal humility. Level 5 leaders are the ones who look at the mirror to assign blame for organizational failures and they look outside the window to attribute credit for successes. Level 5 leaders consciously set up their successors for success and constantly put the organization's ambitions above that of their individual ambitions. In the words of a learning organization, Level 5 leaders exhibit personal mastery.

Personal mastery helps individuals in becoming *truly* proactive. As Covey points out, proactive people realize that human beings are the only ones provided with the ability to be truly proactive; i.e., the ability to *choose* response to every stimulus, based on self-awareness, imagination, conscience and independent will. Personal mastery unleashes our ability to practice proactive-ness. Covey also points out that most individuals have their "circles of concern" that are larger than their "circles of influence." Individuals that do not practice personal mastery (reactive individuals) have an outside-in orientation where they focus their energies on the bigger "circle of concern," which results in their diminished "circle of

influence." Senge calls this common phenomenon *emotional tension*. He suggests converting this emotional tension into creative tension, the gap between one's current reality and personal vision. Practicing personal mastery shifts one's focus to the "circle of influence" thereby enhancing it.

Personal mastery challenges individuals to first answer the all-important question in one's life what is it that is *most* important to *you*? That helps in identifying their personal vision. Personal mastery is a discipline of continuously clarifying and re-clarifying one's personal vision. Secondly, it challenges individuals to paint an unbiased picture of current reality. Senge calls this *commitment to the truth*. Many individuals do both of these--clarifying their personal vision and current reality--and the subsequent gap they see between the two leads them to a state of helplessness and powerlessness. This behavior is typical of reactive individuals who get bogged down by emotional tension. Typically their personal visions erode or they develop biased perceptions of current reality. Or some reactive individuals, who think they are proactive, develop strategies such as willpower, which will render them weakened after pushing themselves to meet a few goals. Personal mastery cautions individuals to avoid all of these pitfalls and to convert the gap between the vision and current reality into creative tension (energy) and to focus on their circles of influence.

Personal mastery is all about personal *leadership* and is far from the trendy concepts of personality *management*. Leadership here is not necessarily the traditional top management; it can be at any level of the organization. Senge and his colleagues point out that today's organizational leaders have new rolese.g., they are the designers (organizational architects), the stewards (helping others develop and perform better) and the teachers (lead by example).

Personal mastery is a discipline that cannot be forced onto employees. It can be practiced only if individuals *want* to. However top management can help facilitate personal mastery in their organizations by innovative measures. Some examples include: creating a department that facilitates activities that encourage and foster the practice of personal mastery, designing a performance appraisal system that encourages personal mastery, helping employees test their personal vision and values against company culture and core values, etc.

Mental Models

The discipline of mental models is typically confused with dealing with stereotypes and generalizations. It includes dealing with these, but in addition it deals with more subtle types of mental images that we subconsciously develop in our minds. When we discuss the discipline of mental models with a group of participants, we typically go through two simple proven exercises.

In the first exercise, participants are divided into four groups and each group is given a *very limited* description of an individual each group is told that the individual is listening to a different genre of music on a 3-hour road trip. For example, for four groups among participants in Bangalore, one group is told that the individual on the trip is listening to Indian classical music (Carnatic style); the second group is told that the individual is listening to Hindi pop; third group is told that the individual is listening to music in Kananda (the regional language); and finally the fourth group, Western soft rock. The groups are given ten minutes to discuss the kind of individual they perceive their person is and present their perception in as many words as possible higher the better! The second exercise is a "quiz" of ten questions on information pertaining to everyday objects or situations that everybody is extremely familiar with but not necessarily remember. For example, "how many *colors* are in the word Google, the ubiquitous Internet search site", "how many tines are there in a standard dinner fork", "how long does it take to chant the Indian National Anthem," etc. The average score on the quiz is typically less than five out of ten, although all participants agree that they are extremely familiar with all the objects and situations in these questions.

It is obvious that this happens because of the human being's need to filter the data that he/she senses. Although our eyes and ears can differentiate literally thousands of hues and tones, at any given time we can process only a handful of stimuli. Hence, we filter out what we perceive as unimportant and store in our minds only what we perceive as important. Granted, the ten questions in the quiz are unimportant trivia, but the simple exercise underscores the fact that we can observe this phenomenon of filtering even in our *important* interactions with colleagues, family members, friends, etc. Going back to the first exercise about the four different music genres, it is interesting to observe how each group always comes up with a wealth of information about the person (with a specific music interest) including their gender, age, domicile, occupation, other pastimes, personalities, values, moods, even the type of car they ride, their hair-style, etc., etc. The information is also quite consistent between different groups looking at the same genre of music. This is what Senge calls "leaps of abstraction"--our ability to extrapolate lots of information with limited data. The lesson from these two exercises is to first acknowledge that we routinely jump from observation to generalization and also that we make inferences based on economized internal pictures or mental models. Mental models need not be good/bad or right/wrong. But they are simplifications that we are *not conscious of*.

Outdated and inaccurate mental models at a collective level can result in organizational inertia and can impede organizational learning. A classic example of outdated mental models has been seen in the U.S. auto industry. The U.S. automakers lost market share and profitability because their mental models focused on styling while the Japanese companies focused on quality in the 1970s. The mental model that quality improvement and cost reduction could not be achieved simultaneously resulted in lack of competitiveness among the U.S. automakers. However, the automakers were *unaware* of their mental models and hence those mental models remained unchanged for a long time. The main reason for them to rebound in the 1990s was their ability to *examine* their mental models and

reduce the gap between their mental models and reality. Again in the recent past, when Toyota and Honda focused on developing innovative products (e.g., hybrid vehicles), GM and Ford focused mainly on bigger sports utility vehicles and trucks. It is obvious which companies are less affected by the current escalating gas prices. It is thus critical to be *aware* of the existence of subconscious mental models and subsequently to *surface, test and improve* these mental models. By this practice, individuals and organizations can help accelerate organizational learning (instead of impeding it).

Some of the keys in practicing the discipline of mental models in organizations are practicing values such as openness and merit. Openness in an organization is having an environment that encourages dialogue and debate on controversial topics among employees from different organizational levels. Merit is making decisions in organizations based on the best interests of the organization irrespective of where or from whom the input to make the decisions came. Practicing these two values can help diminish the evils of organizational bureaucracy, politicking, defensiveness and inertia. Another key, according to Senge, is the skill of balancing inquiry and advocacy. Most of us are trained to be (and strive to be) good advocatesarguing our points of view. But we seldom *inquire* about our mental models or our interactions with others. It took none other than Confucius to sum this up succinctly: "We have two ears and one mouth since it is twice more difficult to listen than to talk." Even more difficult than to listen is to reflect and inquire. Practicing reflection and inquiry skills and balancing that with advocacy can go a long way in the development of a learning organization.

A classic example of mental models in organizations has been very well researched and documented performance appraisal. The halo, horn, first-impression, recency, clone, and other errors in performance appraisal are a direct result of the inability of managers to understand the presence and influence of unexplored individual mental models. At the organizational level, the inability and/or the

unwillingness to acknowledge and recognize the mental models can result in "sacred cows." The top management in a company that we recently consulted with had made the topic of flextime a scared cow for many years. Employees could never bring up their pet topic- - the option of flextime. However, subsequent but deliberate attempts to examine and clarify the mental models that the top management had about flextime and its implications, resulted in open discussions between management and employees on this topic, ultimately resulting in certain flextime options in the organization. It is prudent for organizations to periodically examine the organizational sacred cows, and question: why do they occur, what are their consequences, what are the barriers for their elimination and what are the strategies for their elimination. The discipline of mental models can be the best tool in this pursuit.

Shared Vision

Today's organizations are adept at crafting high-sounding vision statements. These visions may or may not mean much to employees of the organization. *True* shared vision is the one that elicits true commitment from the employees. Shared vision emanates out of the personal vision of the employees. Personal mastery-- clarifying an individual's vision--is a prerequisite to creating a shared vision. If one does not know what truly matters for him/her, how can such a person help decide what is important for the organization? Shared vision has been demonstrated as all-powerful in numerous instances in history. Some familiar examples: Mahatma Gandhi was able to unite hundreds of millions of Indians under the shared vision of peaceful and non-violent freedom struggle to bring the mighty British colonial power to its knees; John F. Kennedy was able to vitalize the entire scientific community in the U.S. in his 1961 speech clearly committing the nation to the goal of landing a man on the moon by the end of the decadeit sure happened in July 1969 long after Kennedy died; Taiichi Ohno and his team of workers revolutionized the manufacturing industry

with lean principles in Toyota by committing themselves to the shared vision of reducing all types of wastes.

Let us look at a scenario that many academics might have experienced or at least are familiar with. A large college or university decides to go through a regional or professional accreditation. The dean / provost / president / director or their equivalent officers determine the requirements and standards for accreditation which are typically complex and comprehensive. They find that the college is doing well in teaching and other student-related activities but the faculty, as a whole, is lagging in scholarly activities and publication. For example, many faculty members are not meeting the scholarly productivity goal of X articles in a 5-year period that is required to assure accreditation.

The leaders however decide to pursue their vision of accreditation. They eloquently share this vision and the subsequent benefits for the students, faculty and the institution. They share with the faculty the need for each of them to meet the scholarly productivity goal and the administration's "carrots or sticks" pertaining to the achievement and non-achievement of this goal. This is what Senge calls as an example of the *selling* strategy. Over time, the leader also can *tell* some faculty members that this is the institution's vision; accept it or leave. Another strategy may be that the leaders first *test* the vision with few department heads and faculty members. The leaders can also *consult* with a few department heads and faculty to create and clarify this vision to get the institution accredited. All these strategies (telling, selling, testing, and consulting) have certainly worked in many organizations. More importantly, each of these strategies *must* be used in certain scenarios.

In most organizations, Senge points out a continuum of employee attitudes toward any vision*apathy, noncompliance, grudging compliance, formal compliance, genuine compliance, enrollment and commitment.* It is obvious which of these attitudes are preferred among

employees in an organization commitment and enrollment. In the accreditation example above, certain faculty members immediately commit to and enroll into the vision because it is *their* vision too. Some are genuinely compliant (being convinced about the benefits), some are formally compliant (doing the minimum required after being convinced about the benefits), some are grudgingly compliant (not convinced of the benefits but are scared of negative consequences). Unfortunately, noncompliance and apathy may also be prevalent.

It is also true that there is a strong correlation between the type of strategies used for vision creation and the resulting employee attitude. While *testing* and *selling* strategies can typically induce *compliance* at best, and while *telling* is appropriate when there is *ungrounded and unsubstantiated noncompliance and apathy,* the strategy that assures *commitment* and *enrollment* is *co-creation* of a *shared* vision. Collectively creating vision not only creates a shared vision, but it unleashes the creative abilities of the majority of the team. Co-creating the vision minimizes the need to *sell* and *tell*. However, a word of cautionco-creation of shared vision has to certainly follow (come after) the practice of personal mastery by the co-creators.

Co-creating a vision is a difficult task but it is a worthwhile effort. This strategy is recommended to be used for important endeavors of the organization. Since it is a time-consuming strategy, it is recommended that the leaders start this process as early as possible with as many employees as feasible. To co-create a shared vision, effective leadership and personal mastery are very critical. In addition, the shared vision must be based on well-established core values of the organization.

Team Learning

In organizations, it is common for individuals to form friendships, cliques, groups and project teams. But seldom does team *learning* take place. It is important to differentiate team building and teamwork from team learning. We routinely see organizations building cross-functional and cross-border teams to get projects completed successfully. We all know of instances of people from different backgrounds bringing together their knowledge, skills and experience, creating synergies, communicating effectively and getting the job done. That is team building and teamwork. Team learning goes beyond teamwork. Team learning is the ability to align with other team members, learn from others, help others perform better, help the organization effect enduring changes, and create a ripple effect of learning in the entire organization. It is not just about individuals learning in the team, it is about the team learning together and spreading the learning. In teamwork, the team members contribute to the team, create synergy and get a project completed or a problem solved. However, these positives of teamwork are only a subset of what occurs in team learning. In team learning, team members themselves *learn* from others, help others learn and perform better, and learn about working with each other. Together the team members engage in generative learning. In effective teamwork, the collective IQ of the team is greater than the sum of individual IQs. This is true in team learning also; but in addition, individual IQs of team members are also enhanced in team learning.

When we mention successful teams, most of us immediately think of the most successful team that we were part of or a sports team that we are fans of. Some of these teams are good examples of great teamwork but few are good examples of team learning. Team learning is possible with the effective use of dialogue and discussion. It is extremely important for individuals in a learning organization to differentiate between dialogue, debate and discussion. Effective dialogue can result in reflection and inquiry. Individuals start understanding each other and learning from each other and most importantly helping others perform better. Silence and deeper listening replace constant debating and bickering within teams. Team learning helps minimize the occurrence of conflict avoidance and defensive routines in organizations.

In academe, it is common to observe individual

faculty members and departments possessing a parochial view of education and learning. Unfortunately, academic/departmental boundaries and "turf" are well demarcated and protected. This type of mind-set thwarts learning and is not conducive for development of knowledge required for the 21st Century. Although many universities have successfully formed cross-functional teams to enhance team learning and foster systems perspective, there is still a significant lack of universal involvement in these teams among faculty members. The recent developments in areas such as e-commerce, supply chain management (SCM) and enterprise resources planning (ERP) have necessitated focus toward team learning. E-commerce, SCM and ERP do not naturally fall into any traditional business departments such as marketing, finance, human resources, information systems, operations or management. In addition, without coordination between faculty members in these aforementioned departments, academic programs in these areas cannot be delivered effectively. This is also true in today's successful businesses there is a need for professionals from these different disciplines to work and learn as a team to move their organizations forward in the new millennium.

Systems Thinking

This is the discipline that Senge was referring to as the Fifth Discipline in his best-selling book. Systems Thinking is the all-encompassing discipline. It helps individuals in the organization to realize and think that they are a part of a whole (system) and to look at interconnectedness in every aspect. Systems Thinking is not a new concept but it is a concept that we seldom use. Biologists and medical professionals deal with complex human anatomical systems, economists deal with financial systems, social scientists deal with the complex political and demographic systems, etc. But the holistic approach to dealing with systems is an exception, especially in organizations and businesses. Today's systems and organizations are so complex that it is a

daunting and time-consuming task for individuals to take a systems perspective. Hence long-term best interests of the system (organization) suffer. Systems thinking forces individuals to be cognizant of the fact that consistent lack of systems orientation can lead to the demise of the organization. Although many systems thinking experts have eloquently argued that systems thinking is crucial for the survival of humanity itself, we would like to restrict our discussions here to the organization as a system.

Systems thinking helps individuals in the organization to differentiate between dynamic complexity and detail complexity. A simple exampled esigning and developing an innovative electronic product entails detail complexity. However, dynamic complexity is looking at "developing the product that meets the ever-changing customer requirements, forecasting the demand for it into the foreseeable future, determining the production capability, assuring high quality and low costs in production, procuring the parts and raw materials consistently in the future while understanding the costs of producing and marketing the product over time, understanding competitive and market forces, etc." If we think that managers do these on a *regular* basis, we will be naive. Even if we grant that managers and executives routinely consider the linear *cause-effect chains* in their business systems, they seldom consider the systemic *interrelationships*. Refer back to the auto industry woes of the U.S. automobile companies discussed under Mental Models. Further, it is important for managers to not only look at the system from the "bottom line" perspective but also from the long-term perspective of the organization and its employees in a larger environment. The Balances Scorecard approach (Kaplan and Norton, 1991) works very well in conjunction with the systems perspective.

Systems thinking helps managers identify the high leverage points in organizations. Managers who fully understand the dynamic complexity in their organizations (in addition to

detail complexity) can effectively identify high leverage points. The popular "carrot and stick" management approach has low-leverage whereas assuring commitment by co-creating a shared vision has high leverage. Measuring everything that we do and creating gigabytes of data has low leverage whereas identifying key variables, measuring them and using these measures to improve productivity has high leverage in organizations. Debating and discussing topics in meetings has lower leverage than engaging in a dialogue on a topic after the mental models are surfaced, tested and improved. Exercising willpower to get a difficult job done has lower leverage compared to developing personal mastery and creative tension. Bringing groups of experts together to complete a project is certainly positive but does not have the high leverage as fostering team learning. High leverage typically comes from small well-focussed actions. Many Japanese companies have mastered this art with the help of what they refer to as Kaizen events. Kaizen is the term used for continuous improvement--for small, high-impact positive changes in the organization.

Systems thinking forms the corner stone of a learning organization. It challenges the leaders and employees of the organization to see both the forest and the trees, to focus on the causes and not just the symptoms, to unravel the structures that underlie the events/the decisions/the behaviors that we witness. Most importantly, systems thinking helps individuals and organizations to make a paradigm shift from managing traditional organizations to developing a learning organization.

In academe, it is important for us to go beyond just curriculum development, managing enrollments and journal publishing; we have to gain a true systems perspective. Irrespective of our disciplines, it is also important for us to inculcate in our students the importance of skills such as systems approach and critical thinking and the importance of attitude towards continuous learning. This can help our students in becoming life long learners and systems thinkers, important qualities for today's professionals in any field.

Summary

The intent of the author was to synthesize the concepts of a learning organization for individuals not familiar with them and to re-energize individuals to practice these concepts if they are already familiar with them. The article introduced the concepts of a learning organization based on Senge's Fifth Discipline model while integrating thoughts from renowned management authors such as Collins, Covey, Deming, Drucker and others. Universities, being institutions of higher learning, have a greater potential and capacity to become learning organizations. More importantly, universities have an obligation to foster the practices of a learning organization.

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