



# The Learning Enterprise



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## FOREWORD

Says Paul Valeri, the French poet: *“The problem with our times is that the world no longer is what it used to be.”*

Ray Waddoups, President of Motorola University commented a few years ago that the knowledge we have at the time we leave College lasts at the most, five years; that if we expect to continue being useful to our companies, new skills and new knowledge will play a important role in our future.

Organizations today, and their managers, have to deal with changing times and changing attitudes, new requirements from the market, compliance with ways to protect the environment, and the continuing process of learning both, inside and outside the Organization. This change process is not optional, it is part of modern living and if we can be sure of something, it's that it will not go away. People Management will play a crucial role in the years to come. Change Management will be the cornerstone of successful management in the coming years. Planning will have to take into account not only where the Organization is heading and how, but also what their people should do, and what they *would like* to do. In order for an Organization to change, **leaders** have to change; cosmetic initiatives will not do it. People will look up to their Leaders and they'll test them out. They'll do *what they see their Leaders* do, not what they are told to do.

As Dr. W. Edwards Deming once said: *“Nothing forces you to change. You change if you want to. After all —survival is not mandatory.”*

We face a continued demand for the increase in productivity, roughly 5% annual, for improving the quality of our products and services, which is no longer measured in percentage but in parts per million; acquiring and implementing new

technologies which will force further learning, reduce cycle time and improve performance, maintain incremental improvements and foster discontinual improvement —giant leaps resulting from innovation.

Improvement comes not only from the proper implementation of the Quality Philosophy as taught by W. Edwards Deming, but from learning from our successes as well as from our mistakes, joy in work, the pride of knowing that we not only did a good job but are also capable of doing it again; from *catching people doing things right*, and registering our experiences so that we can reproduce it, teach it, and make part of our new way of doing things.

Barriers between people, functional areas, departments, and other companies have to be removed for us to learn to work together as a team. Organizations face many challenges and they must be ready to confront them when the times come. However, when faced with changing or difficult situations, companies take a different attitude:

- **THEY DO NOTHING:** and thus wait until it's too late, in the mistaken idea that if we do nothing, nothing is going to happen, which of course is false. People and things have their own inertia and even if you do nothing, other will not stay put and undesirable consequences may arise, unexpected results that will find us unprepared to react. A better way is to be **Proactive** instead of Reactive.
- **THEY SAY “WE NEED AN EXPERT”:** They look for people from the outside, or assign people to different projects in different areas, with limited knowledge of the Company, and no understanding



whatsoever of the Systemic nature of the work process, thus an improvement in one area may affect negatively the results in other areas, and vice versa.

- **THEY REALIZE THAT THERE ARE FUNDAMENTAL ASPECTS THAT HAVE TO BE DEALT WITH:** And it is then that they come to realize that they may need help in dealing with these new issues, that their managers may not have the skills to deal with them, and that continued improvement is based on acquiring new

knowledge and putting it to work, as Deming said: ***Knowledge comes from the outside and by invitation.***

Ray Stata, C. E. O. of National Semiconductor Co. puts it this way: *The way in which individuals and organizations learn may very well be the Only competitive advantage. If you are improving better and faster than your competition, you will always be ahead in the curve.*

## WAYS FOR LEARNING

People learn in different ways: They learn by doing, they learn by using, by listening, they learn by failing and they learn by watching

**LEARN BY DOING:** There is a normal learning curve which is going to be shorter for some and longer for others. As you improve, your efficiency improves. When you study a process, work on it and improve it from the experience you are getting while putting your learning to work, you can reduce the *causes of your costs* by 15% to 20%.

**LEARN BY USING:** Is based in our capacity to experiment, to take risks; and of course this requires that the organization has created a climate that allows you to take measured risks. We do this quite often, very seldom we read the instructions on a new appliance, a new tape recorder, Video camera, computer or computer program: We usually start to work with it until it is familiar and give us the expected results. Of course there are ways to improve this further with formal learning.

**LEARN BY LISTENING:** Listening to our customers and what they have to say about our products and services, listening to the “internal” customers, the guy next in line in our work flow, and learning of his needs, requirements or problems so that we can also improve. Listening to our peers when they give you honest (and sometimes not so honest feedback); listening to the

people in other departments, other companies, contractors, the community; and thus avoid costly mistakes. Listening to them so we will learn what we have to improve and how may require to adopt new attitudes, to have courage, or to be humble.

**LEARN BY FAILING:** This is a difficult one, because nobody likes to fail; but this is a common and profound way of learning that we have used during our entire youth, and even later. Russell Ackoff says: *“if you don’t make a mistake it’s because you knew how to do it in the first place, and if you knew how to do it in this first place, what have you learned?”* Most organizations are set up so that failing and making mistakes is bad, and what really happens is that you continue to make mistakes and may never learn what caused it—the **Root Causes**, not the apparent reasons for failure.

You can learn from the failed introduction of new products, from things you omitted to do, or from things you did. We must keep in mind that *good decisions come from Wisdom, Knowledge and Experience; and Wisdom, Knowledge and Experience come from bad decisions.*

**LEARN BY WATCHING:** The perfect example of this is the way Honda Motors Corporation used for designing the luggage compartment of the best selling Honda Accord. Honda had problems with the old design and decided that the new Accord would do away with the



problem, so they flew their entire design team to Disney World. They took the whole 60+ group to the Theme Park's parking lot, and allowed them to see for three days the way people used the trunks of their cars: what they put in them, what they took out, the size and shape

of the packages, they type and size of their luggage, etc. From this came the best selling Honda Accord to date, and the luggage compartment was praised by a high percentage of buyers.

## WHAT IS A LEARNING ENTERPRISE

A Learning Enterprise has to develop skills in two areas:

(1) it must Develop, Acquire, and Transfer knowledge.

(2) It must be capable of modifying its own conduct to understand, practice and apply to itself the new knowledge. Most organizations do the first, but they fail at the second and thus do not transform into a true learning enterprise.

A Learning Enterprise **ENCOURAGES SYSTEMATIC PROBLEM SOLVING**—do it in a regular basis using proper quality tools, not *epileptic* problem solving. It uses Data, not gut facts, and practices this throughout the organization, not on certain areas or departments.



A Learning Enterprise **TRIES OUT NEW WAYS** to learn, see problems and opportunities from different perspectives.

**LEARNS FROM EXPERIENCE** (good and bad) and past history. History has a way of repeating itself, if you know the turn of events, you then may anticipate problems, be prepared for rare or infrequent opportunities—like been at the right place at this right time. Success is not luck, success is hard and sweaty work.

A Learning Enterprise **DEVELOPS SKILLS TO IMPLEMENT BEST PRACTICES** from other organizations. We are not talking about performance indicators, we are talking about the

practices: the way you do things to get the desired results. Bear in mind that best practices will not work for everybody and everywhere. It requires to understand the “culture” of the organization, to design these practices into the new culture, to make them work, to put the hearts, hand and minds of the people into the new practices, and to understand the **systemic** nature of the process: see it as part of a whole, not as a separate units on their own.

And finally, a Learning Enterprise must **TRANSFER LEARNING THROUGHOUT THE ORGANIZATION** and this requires understanding the nature of the lessons learned; to register whatever we learned, to have all stakeholders contribute to gathering and analyzing this knowledge and give it proper form so that it can be shared.

It would be useful to know the way Toyota of Japan learns, because they implement different ways to learn, share their knowledge, and make it stay so that it can be transformed it into a real competitive advantage. The same as other Japanese automotive enterprises, Toyota has been very successful in bringing new management technologies and implementing them in their American factories, with wide acceptance from their American workers.

In 2004, Toyota will step ahead of Ford as the second largest automotive enterprise in the World, and in a few years it will be ahead of G. M. Right now it's the most profitable.



**DECIPHERING TOYOTA-SPEAK**  
A handy glossary for understanding the company's vernacular

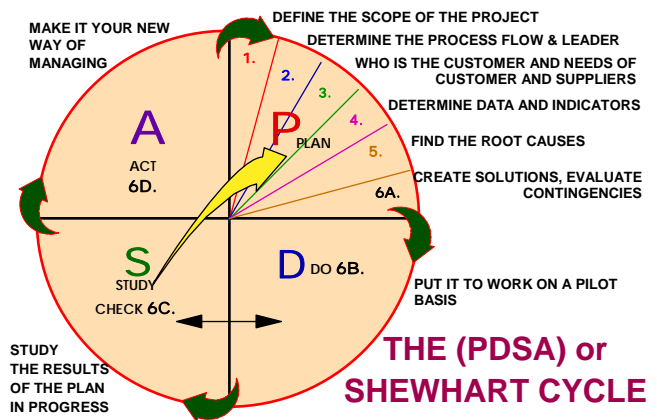
<p><b>Kaizen</b></p> <p>Continuous improvement. Employees are given cash rewards for ferreting out glitches in production and devising solutions.</p>	<p><b>PDCA</b></p> <p>Plan, do, check, action. Steps in the development cycle aimed at quick decision-making in a task such as designing a car.</p>	<p><b>Obeya</b></p> <p>Literally, "big room." Regular face-to-face brainstorming sessions among engineers, designers, marketers, and suppliers who develop new models.</p>
<p><b>Pokayoke</b></p> <p>Mistake-proofing. Use of sensors to detect missing parts or improper assembly. Robots alert workers to errors by flashing lights.</p>	<p><b>CCC21</b></p> <p>Construction of Cost Competitiveness for the 21st century. A three-year push to slash costs of 170 components that account for 90% of parts expenses.</p>	<p><b>GBL</b></p> <p>Global Body Line. A manufacturing process that holds auto frames together for welding with one brace instead of the 50 braces previously required.</p>

Toyota uses **Kaizen**, continuous improvement; the **PDCA** (**P**lan **D**o **C**heck **A**ct or Shewhart cycle, later changed by Deming to the **P**lan **D**o **S**tudy **A**ct cycle); **Obeya** which is a way for all involved to sit in a room to share learning experiences in brainstorming sessions among engineers, designers, marketers, and suppliers to develop new models, new ways of working together and how to be the first at the market with new products and ideas; **Pokayoke** or Catch Ball to take ownership of problems, opportunities or mistakes, mistake proofing techniques in detecting missing parts or omissions and taking charge immediately; **CCC21** which is a way to build cost competitiveness for the future and reducing cost though redesign and removing barriers and cause costs or negative interactions; and **GBL**: new technology aimed at using new car frames globally to reduce body work.

A word on the Shewhart Cycle. Many organizations work on what we call the **Plan-Act**

**system**. They believe that if we **P**lan quickly and **A**ct immediately, we gain speed and get faster results. Aside from the fact that this may be necessary of certain occasions, this is no way of running a business. **Plan-Act** gives a false sense of speed that turns costly and sour when we do not plan properly following all six steps; when we fail to implement the plan or improvement project on a pilot basis (**D**o stage) and when we fail to study the implementation of the Plan or Project so as to learn what makes it work, what's not working, if we missed something of the Plan stage or designed inadequate indicators; and then proceed to modify the plan, to change the way it is been implemented, and to learn from the experience before we **A**ct to make it out new way of managing or doing things.

Systematic problem solving, remember, requires to act based on Data, not assumptions. Using the Shewhart Cycle and the Problem Solving techniques of the 7 Quality Tools, using you brains and the 7 Managing Tools, using your people, understand that your customers and employees think, not assuming you know what they think, and been able to reproduce the results, to do is again and again with similar or better success.





## CHARACTERISTICS OF A LEARNING ENTERPRISE

There are several virtues that a learning organization must have. Maybe they will not have them all at the same time, or maybe they will have one more developed than the other; but they must *aim* at having all six of them and to use them effectively, combining them in a true winning formula.

First, they should create a **LEARNING CULTURE**: that is to say they facilitate learning, sharing new knowledge, sharing the goods things that are been developed and done within the Organization, and helping other people and departments use this knowledge.

They make **KNOWLEDGE SYSTEMIC**: they understand that the organization is an indivisible whole, and that all its components interact to reach the desired results, and so they should not neglect any part, or try to improve a part at the expense of the whole. An organization is an *interdependent set of people, departments, item, etc. that work together to reach the goal of the enterprise*, its Vision.

They have a **SHARED VISION**, understood by everyone, a vision they can relate to, a vision that gives them a sense of direction, that appeals to their interests and desires, that they feel they can support, that means something to them and

shows a picture of the future that's worthwhile striving for.

They develop **LEADERSHIP AND EFFECTIVE MANAGEMENT** skills: Their leaders and managers walk their talk, they not only point the way but take the first step, they help their people and understand their role; have principles, make resources available in the form of money, time, enthusiasm, pride, confidence and *joy in work*.

They have **FLEXIBLE STRUCTURES** capable of taking initiative, being flexible and adapting; of eliminating barriers between departments, managers, people, other companies and stakeholders, of avoiding kingdoms, privileges and individual turfs inside the company, that foster bureaucracy and climbing the corporate ladder on the corpses of other colleagues.

They establish an **EFFECTIVE COMMUNICATION NETWORK** which leads to developing good planning, designing proper strategies for the future, setting learning goals for the Corporation that will lead to their development and future success, to making its people more valuable to themselves and the organization, that say and do the right things, capable of reaching all parts of the Company in a regular basis and in a *consistent way*.

## SKILLS OF A LEARNING ENTERPRISE

**(1). MAINTAIN EXPERIMENTAL PROGRAMS** to find out new ways of doing things, new components, new technologies, new processes. To stimulate the flow of new ideas, create an incentive system aimed at taking risks within the boundaries of policies, principles, and sound managing; but capable of liberating the creative self people have within themselves.

Without a creative environment there will be no innovation worth speaking of. Says Myron Tribus: *"The best thing you can do is take a risk and be successful. The second best thing you can do is take a risk and fail. The worst thing you can do is no to take risks at all"*. C.E.O.'s must remember that they didn't get there by following the crowd, but by doing things different and better.



Of course, top and middle managers must be helped to acquire and use the new skills they require in they work, and not only technical, but personal, in attitude, in people skills, planning methods, follow up, etc. Only better people can turn out to be better managers.

In experimenting, you should distinguish the difference between Know-How, Knowledge and Wisdom.

**KNOW-HOW** is knowing how to get things done, to bend the system, that little kick to get the air conditioned running. It requires experience, not knowledge.

**KNOWLEDGE** is to know why. It requires theory and the tale of Chanticleer, the proud English rooster is a good example. Chanticleer sang every morning, very, very early. He noticed that every time he sang, the sun came up, so he developed a theory: *When I sing, Sunrise occurs*. But one day he slept late —and the sun rose, nevertheless; and so Chanticleer had to revise his theory. Now he knew that Sunrise did not depended on him singing, but was a different and natural phenomena.

**WISDOM** is understanding and goes a step beyond raw knowledge. With people you need understanding, knowledge and know-how are not enough.

**(2). DEMO PROJECTS:** As a rule, any new project involves new principles, new views, new perspectives and different ways of looking at familiar problems. Visualizing the way I am going to run this Company, or this department, in the future it will involve new policies or revising the ones that we have, with the customer in mind. It takes a lot of help from managers and total commitment from the employees; solid multifunctional and multilevel teams, with explicit strategies for transferring technology and acquired knowledge.

**(3) LEARNING FROM PAST EXPERIENCE:** Which is what we have done with the Benton-Vincler Gas Project, and that is

- Review past experience, point out successes and accept failures and what we learned from them
- To evaluate in a systematic way so that it can be understood and used by others
- Make it known so others can know of their experience, relate to it, and maybe use the same method for their own work, areas, or expertise. Use “Positive Reinforcement” to point out special contributors to the outcome, and record it so that we can refer to it later.

## THE ROLE OF MANAGEMENT



Management must be aware of the value of “Productive Failures” as opposed to “Improductive Successes”

A **PRODUCTIVE FAILURE** is something we did wrong or not so well but allowed us to learn from the experience and make it better, to avoid future mistakes, to be aware of the risks involved in the process and what

protective measures to take. It gives us understanding and allows us to see and work for a better future.

An **IMPRODUCTIVE SUCCESS** is something we did exceptionally well, but nobody knows how or why; and we will not be able to reproduce it in the future.



The role of management is to stress the importance of learning from our failures to

improve our chances for success.

## WHERE AND HOW TO LEARN

**NEW HIRES, NEW RECRUITS, STUDENTS** doing part time work. They are not conditioned by the “*I have always done it this way*” syndrome. They ask “dumb” questions that makes us think about our way of working, that makes us realize that there is a different way that may be worthwhile looking into.

**CONSULTANTS.** They usually bring in new knowledge the Company is not familiar with, new methods and skills, more discipline, and an

- Personal wise
- Management wise
- Resource wise

Round tables to share experiences

outside view of inside problems that bring in new perspectives.

### ANALYZE SUCCESSFUL PROJECTS:

What did we do good?,

What did we do poorly?,

What things should we be careful of?,

What are the thing that contributed to its success?

- Community wise
- Sense of opportunity
- Need

## LEADERS SHOULD ASK THEMSELVES AND THEIR PEOPLE THESE 6 QUESTIONS:

1. What's *working* already?  
What can we do better?
2. What *makes* it work?  
What can we *learn* form it?
3. What's our *objective*?



4. What are we trying to *achieve*?
4. What's my reward in reaching the objective? Where am I?  
*What's in it for me?*
5. What could we be *doing better*?
6. What are we *waiting for*?

## THE WORLD WE FACE

The world before was somewhat placid, predictable. If you had a map you could move around and things didn't change much. Miles and miles of tranquil rivers where we could hear the rapids from the distance, so we could be prepared and have the proper gear ready when the time came. The economy moved at a respectable pace,

the competition was inside the Country and respected certain rules we were familiar with.

Yesterday we could get away with regular improvements in productivity, reaching an stable





state, and getting a reasonable return on our investment. Not anymore.



The World today is somewhat different. For one thing it's Global, with new rules and regulations that change constantly and forces us to detect and adapt with great speed. There are no maps that give a clear view of the territory, only an acceptable indication of where things are and what we should expect. Rivers are all rapids, some more treacherous than others which give us little time to prepare, the turbulence overwhelms us. This environment calls for continuous learning.

To survive in the world of today we must learn to **ADAPT** to changing market conditions, and our

first priority should be being competitive in the long run. This requires **FLEXIBILITY** to respond quickly and properly to new customer requirements. The new world of tomorrow also calls for managers capable of **MANAGING CHANGE**, something for which they are usually ill prepared.

In a changing world, we can no longer continue doing what we have always done, because then we will continue getting what we always got, and this is simply not enough. Albert Einstein put it bluntly: *"The best definition of insanity I know, is trying to get different results, doing the same things"*.



#### **A LEARNING ENTERPRISE THAT PROGRESSES IS COMMITTED TO WORKING ON FIVE FRONTS:**

- 1. A PROCESS OF SYSTEMATIC PROBLEM SOLVING**
- 2. EXPERIMENTING WITH NEW WAYS OF DOING THINGS**
- 3. LEARNING FROM PAST EXPERIENCE**
- 4. LEARNING FROM BETTER PRACTICES IN OTHER ORGANIZATIONS**
- 5. TRANSFER KNOWLEDGE THROUGHOUT THE ENTERPRISE IN AN EFFICIENT WAY.**