QUALITY - Striving for Excellence

NATIONAL CENTRE FOR QUALITY MANAGEMENT

www.ncqm.com

Vol.IV | April-June 2016 | No. 2

CONTENTS

Continuous Improvement Strategy, Tools & Execution
by Mr. Navin Dedhia 3

Approach towards Continuous Improvement – In General & in Lean Six Sigma in Particular
by Mr. Manoj Tamboli.....8

ISO 9001:2015 Quality Management System (QMS) Making Excellence a habit
by Dr. P. Poddar.....10

How does quality relate to productivity?
by Dr. P. Poddar.....12

Vendor Risk Assessment
by Mrs. Latha Sunderkrishnan.....13

Improvements in Oil & Gas Industry in a summary
by Mr. S. V. Viswanathan 17

Innovative Learning Techniques
by Mrs. Anita Agrawal 20

Creating a change through Education
by Mrs. Kalyani Konar 22

Improving Kindergarten years - No child's play
by Mrs. Sumita Parameshwaran
.....23

NCQM News.....24

President's Page

Improvement in manufacturing & service

B. Banerjee

Focusing on breakthrough improvements in manufacturing & service, I shall provide certain important building blocks undertaken by world class organizations.

- **Overall equipment efficiency (OEE) :** It is product of availability (A), performance (P) and quality (Q)
  Thus OEE % = (A X P X Q) X 100
  In layman's language,

$$\text{OEE \%} = \left(\frac{\text{Production time of actual saleable quantity}}{\text{Calender time}} \right) \text{X } 100$$

  World class standards on availability rate is 90%
  performance rate is 95.5% and quality rate is 99.9%
  which gives OEE as 85% as against 40% to 50% in India.

- **Cross industry bench marking :** Arvind eye hospital at Bangalore, which is considered as world's most efficient and cheapest cateract surgery hospital, benchmarked their process with that of Mc.Donald. A Singapur hospital tackled contamination problem during transfer of patients from OT to ICU by benchmarking the time with that of changing tyre of a car in formula 44 race.

  In benchmarking process normally **"four I and one D model"** is followed. It comprises identification of best practices, implementation of best practices, institutionalization of best practices, internationalization of best practices and dissemination of best practices.

- **Proactive visits to customers :** This is religiously followed by ACG – Worldwide in which M D himself leads heads of companies in the group and proactively visits its major customers two days in a month. This has helped them in increasing their market share substantially.

- **Religious adoption of 5S, TPM and Lean :** Hindustan Unilever Ltd., has taken a decision at overseas board level that all of their companies throughout the world, must take to 5S & TPM route in their excellence journey right from project initiation stage. Same is the case with Lucas TVS, Rane Engineering, Mahindra & Mahindra and for that matter all Deming award winning companies.

- **Adopting zero defect philosophy through control at source :** ZD philosophy is based on four Is : They are : identify real root cause of the problem and find technical solution, inspect while the job is in progress to build quality into the product, instruct in error free work habits by training people and writing out clear cuts do's and dont's in terms of OPLs (one point lessons) pictorially and instill and motivate employees at all

Contd...2

levels and involve them in decision making. L & T's ESP division maintain process control chart on process CTQs (Critical to quality) like main cylinder ram pressure, zonewise temperatures at heat treatment and also on product CTQs such as mV drop.

- **Target oriented technical training (TOTT) :** Deming journey towards excellence in quality emphasies on TOTT and related topics such as 5S, SHE & JH, seven basic QC tools coupled with RCA (root cause analysis) to concerned workmen.

  This helps in formation of Kaizen & Quality Circles' teams and administration of suggestion schemes leading to sustainability of an organization.

- **PDCA on managing points (MPs) and checking points (CPs) :** During plan itself develop MPs for a level and CPs for subsequent levels, for example overall actual sales target will be MP for head of sales, whereas zone wise, market segment wise sales will be CPs of respective zonal managers. Also plan for a sound review mechanism. Suggested frequency of review : functional eg sales head to review at least once a month. Review frequency of zonal managers (one level below), branch heads (two levels below) and sales engineers (three levels below) should then be fortnightly, weekly and daily respectively.

- **Successful implementation of KRA system :** In manufacturing category of MBNQA or RBNQA business excellence model there are 84 KPIs (Key performance indicators) which are developed based on SMART principle. They fall in either of ten heads eg PQCDSSMGIP (productivity, quality, cost, delivery, service, safety, health & environment, morale or motivation, good manufacturing practices, innovation and profit). They are integrated with KRAs (key result areas) of respective functional heads. Monthly performance on each of them is trended and compared against its respective stretch target.

  Denoting X as the average performance of '2015-2016', the stretch target Y for the year '2016-2017' is taken as $Y = 0.5\ X$ for scrap, rework, customer returns etc. and

  $Y = X + 0.5\ (100 - X)$ for parameters like yield, efficiency, market share etc.

Suggested review band : Deviation beyond 3 Sigma – functional head must review with all concern and develop time bound action plans. Deviation between 2 to 3 sigma to be handled by zonal managers and those between 1 to 2 sigma by branch heads.

B. Banerjee

Workshop on Robust Quality Engineering in Mumbai (19—21 Jan'17)

An International conference on Robust Quality Engineering will be held in Mumbai during 19-21 January 2017. It is organized by NIQR—Bangalore. NCQM is its co-organizer.

The theme of the conference is **"implementation of Zero Defect using Product and Process Robustness"**. This is an innovative engineering practice to eliminate loss to society caused by undesirable products.

Its location is: Reliance Infrastructure Ltd. Reliance Energy Management Institute, Opp. to SEEPZ Gate no 3, JV Link Road, Goregaon (E), Mumbai—400065.

It will have a conglomerate of international luminaries like Dr. Genichi Taguchi, Dr. Shin Taguchi, Dr. Eng.Shuichi Fukuda -- Stanford University (USA), Dr. Rajesh Jugulum and many more.

Robust Design method, also called Taguchi method greatly improves engineering efficiency and effectiveness. Consideration of the noise factors (environmental variation during the product's usage, manufacturing variation and component deterioration) and the cost of failure in the field greatly enhance the efficacy of the design Output and thus the Robust Design concept helps in improving customer satisfaction. Robust design focuses on improving the ideal function of the product or process, thus facilitating flexible designs and indeed, it is the most powerful methodology available today to reduce product cost, improve quality and simultaneously reduce development time.

The approach aims at reducing waste during manufacturing and operations. These effects had great impact on the cost structure and hence on the bottom line of the companies.

The Robust Design method has helped to reduce the development time and cost by a factor of two or better in many situations. It has a wide applicability be it in Manufacturing, Software or Service applications.

It may not be out of place to mention here that first conference was held in 2012 at the university of Teknologi, Malaysia, Kuala Lumpur where 150 plus researchers & scientists participated.

NIQR, Bangalore along with members of ICQRE, had its second International conference on the theme "Robust Quality engineering" at hotel Citrine, Bangalore during December 2014. About 250 delegates from all parts of the world attended the conference which was really a great event.

As the President of NCQM I advise all our esteemed members to take advantage of this life time opportunity. I can assure you that it will be really a **"Value addition"** and **"Action orientation"** type.

For further details kindly contact our NCQM's Vikhroli office or refer to our website : **www.ncqm.com**

Continuous Improvement Strategy, Tools & Execution

by Mr. Navin S. Dedhia, Chairman of NCQM's International Committee &
Fellow ASQ, USA

Abstract

Dynamic organizations are the ones, who are always seeking new ways of doing the business by continuously improving their business operations and activities to create a growth in the market share and increase the profitability. Continuous improvement activity is emphasized heavily in order to stay competitive. Continuous improvement activities are important not only for the survival but for the growth as well as for the innovative products, services and solutions.

Introduction

The field of quality evolved gradually from error detection by performing 100 % test and inspection to error prevention using zero defect concepts to customer focus by applying management system approach to performance excellence using continuous improvement strategy. The reference date for the quality activity goes back when Dr.Walter Shewhart's book on "Economic Control of Manufactured Product" got published in 1931. Since1931, many more quality initiatives have evolved to improve quality, productivity, performance, cycle time reduction and profitability.

Pursuit of performance excellence requires products and service identification, determination of customers and their requirements, processes and procedures creation, resource and training requirements, defect elimination along with process optimization and continuous improvement. The vision of performance excellence is demonstrated by the US Malcolm Baldrige National Quality Award, European Quality Award and Deming Prize.

Management system is defined as an organized approach to managing the elements of a business in a way that fosters continuous improvement. The systematic, continuous improvement process approach is the basis of performance excellence.. The key ingredients of the continuous improvement process are teams, technology, tools, deployment of best practices, and leadership doing the catalytic work. Self assessment of a process reviews using SWOT analysis tool -strength, weaknesses, opportunities and threats- to adjust the processes in order to gain a competitive advantage.

Employees need to understand the organization's quality policy in relation to their position and task and contribute towards the fulfillment of goals of an organization.

Value added activities focus on loss prevention, anticipating change, noting trends and projecting impact on the future when corrective and effective preventive actions are identified and implemented.

An audit is based on three principles: a) Say what you do, b) Do what you say, and c) show me with evidence. Auditors look for the system approach, system implementation and system effectiveness to verify the desired outcomes from the results of the process. A successful audit shows partnership between auditee and auditor. Professional and objective approach, open and honest communications and feedback and value creation for the organization are important part of an audit.

Continuous improvement encompasses all forms of improvement in the form of elimination of defects, incrementally adding value, and providing long term innovations on a large scale. Improvement strategy is dynamic in nature, dramatically redefining systems, processes and outputs. Steps required for the continuous improvement are measure, monitor, manage and maximize.

Continuous Improvement Strategy

It encompasses all forms of improvements such as:

- Elimination of defects, errors, mistakes
- Improvements that incrementally add value
- Larger scale, long term innovations, strategic in nature that dramatically redefine systems, processes and outputs
- Improvements in customer perception
- High employee morale

The philosophy of continuous improvement lies in root cause analysis and resulting actions. Measurable benefits are obtained from effectiveness of actions. Continual improvement can be considered as a stepped approach to improvements as opposed to continuous, which is unbroken, constant or uninterrupted. Continual improvement occurs regularly and frequently. There can be intervals over which little progress may be obvious, but, over the longer period overall improvement is realized.

Examples of continuous improvement activities include:

- Quality improvement teams
- Quality improvement programs
- Total Quality Management (TQM)
- Reengineering processes
- Process redesign
- Improvements in process/products performances
- Product consistency
- Documentation review and update
- Training enhancement

- Automated tools
- Investments in new tools/techniques/methods
- New and improved material
- Lean operation (doing more with less)
- Lean and Six Sigma

Innovation and quality are reliant on each other for success. Innovation is fundamentally the act of doing things better, faster, more efficiently or with greater quality.

Dr. W. Edwards Deming's cycle known as PDCA (Plan, Do, Check, Act) or PDSA (Plan, Do, Study, Act) cycle is an useful tool for continuous improvement activities. Dr. Deming's cycle will lead to improved processes, cost reductions, improved market perception and high morale of all stake holders. The elements of PDCA are:

Plan–Say what you will do (Define the improvement, outline and establish the plan, and solution and document it)

Do-Do what you say (Implement the plan and solution, maintain it)

Check–Check results vs. expectations/objectives (Monitor the results by measuring and analyzing the data, performing management reviews, conduct internal audits)

Act–Improve deficiencies (Revise/update the plan and solution, Take appropriate corrective/preventive actions to improve it)

Continue the cycle to optimize the output and results.

Breakthrough projects are conducted using project management technique leading to revision and improvement of existing processes or the implementation of new processes. Small-step ongoing improvement activities and breakthrough projects involve:

- Reasons for improvement (Why is it being done, what are the benefits, impact if not done?)
- Analyzing and assessing existing situation (Where is the problem, who's causing it, why, when is it happening?)
- Establishing the objectives for improvements (What's the gain?)
- Carrying out root cause analysis (Using Pareto analysis or Shewhart Fish-Bone Diagram)
- Identification of best possible solution using brain storming and prioritizing technique to achieve the objectives (How many solutions are being proposed, cost of implementation, resources?)
- Selecting and implementing best solution
- Measuring, verifying, analyzing and evaluating results of implementation to determine the objectives (Any change after implementation?)
- Evaluation of effects
- Implementation and standardization through the formal changes
- Evaluation of the effectiveness and efficiency (Are established objectives being met, output vs. input?)

Problem solving project can be summarized in five stages:

1. Explore – performing cost benefits of the project. Assessing involved risks,
2. Initiate – Form a team and have a brainstorming session to suggest the best alternative solution
3. Implement – Implement the best solution
4. Sustain – Keep the momentum going until the project completion
5. Emphasize – Provide resources to enhance the project

A survey shows that top management influences the success of a continuous improvement project by 50 %, middle management by 26 % and the first-line supervisor by 19 %.

Overproduction, defects, material and information movement, unnecessary process steps, process waiting time, inefficient movement and rework fall into the waste categories, where actions can be taken to reap the benefits.

Sources of Information for Improvement

The following sources provide valuable information for improvements:

a) Customer complaints (direct or indirect feedback)

b) Internal audit results

c) Nonconforming reports

d) Outputs from management reviews

e) Data analysis

f) Customer satisfaction measurements

g) Relevant quality management system records

h) Employees

i) Process and product measurements

j) Results of self-assessments

k) Lessons learned from the past experience

l) Early warning system

Tools and Techniques for Improvement

Tools and techniques to achieve continuous improvement strategy include:

1) **Brainstorming:** An effective group technique to generate new ideas and possible solutions.

2) **Benchmarking:** It is the continuous process of measuring / comparing products, services, and processes against those of the toughest competitors or those companies recognized as industry leaders. It is a positive practice to improve the structure of operations to achieve superior performance.

3) **Cause-effect diagram (Ishikawa diagram, Fishbone diagram):** It shows the relationships between effect and possible influencing causes.

4) **Check Sheet:** It is a mechanism for identifying variables and counting their frequency of occurrence.

5) **Control Chart:** A run chart with statistical upper and lower control limits of the process.

6) **Flow Diagram:** Pictorial presentation showing all process steps and activities in sequence.

7) **Histogram:** A plot of measurement revealing variation in the form of a bell shape curve.

8) **National/local quality award schemes:** Awards focus on performance excellence and identify and track important organizational results. It helps to determine "Where the organization is".

9) **Pareto Analysis:** A bar graph showing defects from highest to lowest order that helps to set problem priority.

10) **Process Control:** Detects changes in a process and monitors the performance of the process over time. It involves systematic evaluation of the performance of a process and the corrective actions taken for the improvement

11) **Run Chart:** it is a chart showing a graphical presentation over a time to monitor the process and check the trend

12) **Six Sigma Methodology:** Six Sigma is a set of statistical and management tools that can make leaps in improvement. Six Sigma process has a failure rate of 3.4 PPM (parts per million) or 99.99966 % defect-free product. It uses a complicated approach to problem solving called DMAIC (Define, Measure, Analyze, Improve and Control)

13) **Self-assessment techniques:** SWOT (Strength, Weaknesses, Opportunity, Threat)technique is an internal assessment of the organization to create an awareness, increase understanding and identify areas for improvement. Essentially, self-assessment or self-appraisal involves the regular and systematic review of an organization's activities and results. The process allows an organization to clearly discern its strengths and areas for improvement.

14) **Scatter Diagram:** It shows the possible relationship between one variable and another.

15) **Total Quality Management (TQM):** It is a cost effective system for integrating the continuous quality improvement efforts of people at all levels in an organization to deliver products, services and solutions which ensure customer satisfaction.

16) **Kaizen:** It is a Japanese term with the literal meaning of "improvement". The concept implies a continuous effort (improvement) involving everyone in the organization. It is applicable to all aspects of life system including environment, education system, road system, etc. It also means raise the standards further with limited investment.

Organization leaders are responsible for establishing objectives and using measurements to drive continual improvement in quality and customer satisfaction. All employees are expected to contribute to continual improvement as an integral part of the overall strategy. Companies need to change their vision, strategy, operating principles and guiding factors in order to maintain sustainability. Survival, growth and sustainability are key factors in the planning and strategy process.

The organization needs following to be successful and define its future:

Vision - What do we want to be or become?

Mission - Who is our customer and what product or service do we provide?

Values - What do we believe is important?

Goals - How do we live up to our vision, and support our mission and What do we want to achieve in short range?

Objectives - What do we want to achieve in long range?

Strategy - How do we tie all these things together to make our organization work?

Corporate Culture: A basic pattern of shared beliefs, behaviors, assumptions, attitudes and practices

Approach and deployment methods will lay out a solid foundation for the future, which includes:

Approach should include (Tactical plan; What will be done?):

- Prevention
- Sustained continuous improvement
- Problem measurements
- Goals/benchmarking setting
- Innovative and unique processes
- Fool-proofing

Deployment should include (How it will be approached?):

- Customer/supplier involvement
- Cross-functional teams
- Involvements of management and employees
- Effective two way communication .

Results should include (Consequences):

- Customer/supplier measurements
- Measurements against goals/benchmarking
- Sustained gain and progress

To survive and grow:

- An organization needs creativity, innovation, empathy, multi-sensing capability, observations, entrepreneurial spirit, quality culture and customer focuses.

Future growth and sustainability require

- Committed, leading, involved, focused and responsive Management Team
- Organized, responsible, authorized, empowered, trained and knowledgeable Employees
- Visible, traceable, consistent, repeatable measurable and documentable Processes
- Appropriate, relevant, simple, understandable and consistent documents /Procedures / Records

Roadblocks to Improvement Activities

Improvement activities fail due to number of reasons. Employees do not trust the management and do not show loyalty and enthusiasm towards the work. Work ethics are poor with low morale. Management lacks credibility. Employees have not been trained to carryout the project effectively. Two way communications is not happening. Clear-cut objectives for the improvement are not set-up and confusing instructions are given. Participants have a fear of reprimand if not successful and as a result do not take required risk. Management has not delegated authority to make key decisions to the team. Timely decisions are not happening and opportunities are missed. Team member continuity is not maintained and there is high turn over rate.

Improvement Factors

Improvement success is dependent on:

- Teamwork, cooperation and active support from everyone involved
- Enthusiasm is visible in everyone
- Leadership, commitment and ownership
- Management vision
- Clear cut understanding of requirements
- Open communication
- Decisiveness
- Quick decision making process
- Integrity and unbiased fair views

To Survive, Succeed and Compete Effectively

Organizations may have extensive quality control measures in place, but, not everyone lives and breathes them. Under the competitive pressures, companies cannot afford to have anything but the very best quality.

One of the challenges of striving for the world class organization is the process to ensure employees understand the organization's policy, strategy, goals, objectives and management system, specifically, on how an individual's position impact the company's ability to service customers consistently and effectively.

The aim of the organization is to increase the probability of enhancing satisfaction of customers. To survive, succeed and compete effectively, it requires:-

- Visibility and active participation of management in the improvement activities
- Variability reduction of the processes using the proven techniques
- Active involvement and support of all employees, team spirit and cooperation
- Consistencies of goals, understood and adapted by employees
- Process driven management, not people driven management
- True partnership with customers and suppliers with firm commitment
- Creation of positive and encouraging environment to instill creativity in employees (Programs such as suggestion program, Idea generation, Speak-up, Open Door Policy, etc.)
- Strong commitment from all employees
- Error cause removal system
- Ability to solve problems effectively using structured problem solving methods and analytical tools
- Effective training for everyone

- Attention to details
- Elimination of non value added activities

Measurements need to be defined and managed actively. Management steps follow Dr. Demings's PDCA Cycle in the order of:

1. **Measure:** Do, perform regular and effective measurements
2. **Monitor:** Check/Study, perform awareness analysis and timely decision on data
3. **Manage:** Act, based on measurements and monitoring activity, take appropriate corrective and preventive actions
4. **Maximize:** Plan, reevaluate the plan for improvements and breakthrough

Summary:

An action oriented quality culture, attitude and willingness must be developed within the organization not only to survive, but, to thrive. Continual improvement requires a committed, leading, involved, focused and responsive management team to tackle any kind of activities. Organized, responsible, authorized, empowered, trained and knowledgeable employees will accelerate the improvement process.

Improvements are possible for visible, traceable, consistent, repeatable, measurable and documentable processes. For a successful implementation, organization needs appropriate, relevant, simple, understandable and constant documents, procedures and records.

Management commitment for an effective programs, sound decisions and strategy for a success is essential. Improvement can also brought by a partnership, cooperation and a joint programs with government, educational institutions, universities and other industries.

Successful continual improvement activity requires integration of basic principles of excellence in each and every activity by adopting quality-minded attitude and behavior in all interactions while keeping high ethics and high morale. Partnering brings "I win – you win" environment. We cannot forget basic principle of "None of us is as strong as all of us".

Teams are the fundamental building block and the leadership is the catalytic ingredient to deploy best practices to bring the improvement in the organization. "Find, Think and Do" steps bring the fundamental changes. Common human errors can be avoided by applying Poka-Yoke, error proofing, fail proofing or mistake proofing techniques

Angelique Arnauld stated, "perfection consists not in doing extraordinary things, but in doing ordinary things extraordinarily well. Big things will eventually occur when improving a little each day. Perfection requires a dramatic transformation."

About the Author

Navin S. Dedhia is a retired quality consultant; a former ASQ National Director; Fellow of ASQ; Recipient of the ASQ Distinguished Service Medal and E. Jack Lancaster Award, Harrington-Ishikawa Medal from APQO, Harry J. Lessig Medal from ASQ Inspection Division and many ASQ Testimonial Awards; Past Chair/Trustee of the ASQ International Chapter, past Chair of the ASQ Inspection Division and ASQ Santa Clara Valley Section. He has worked at Hitachi Global Storage Technologies, Inc., at San Jose, California; at IBM Corporation E. Fishkill, New York, and San Jose, California, facilities. He is ASQ certified in four quality discipline fields, which are Quality Engineer, Reliability Engineer, Quality Auditor and Certified Manager of Quality/Organizational Excellence. Number of papers have been published and presented by him at many national and international conferences. Dedhia has served community by holding various positions in many organizations.

National Centre for Quality Management

cordially invites all its members and other professionals to a lecture

by **Mr. S. V. Sunder Krishnan**
Chief Risk Officer
Reliance Nippon Life Insurance Co. Ltd.,
on
"Risk Management"

Date : Saturday, August 27, 2016

Time : 4.30 pm to 6.00 pm

Venue : National Centre for Quality Management,
NCQM Learning Centre No. 1,
G-501, Kailas Industrial Complex,
Vikhroli-Hiranandani Link Road,
Vikhroli (W), Mumbai – 400 079.

Lecture will be followed by light refreshment

RSVP : Tel : (022) 2517 0483 / 69 , 40111962
M: 99695 42885

Email : ncqmmumbai@yahoo.co.in /

Approach towards Continuous Improvement In General & in Lean Six Sigma in Particular

by Manoj Tamboli, NCQM Member

While undertaking Training and Consultancy assignments with Corporates as well as with the Academics, the experience which is true in both the instances is that 'much need is felt in investing more on developing & articulating the basic approach towards Continuous Improvement (CI), even before beginning to talk about broad framework of any particular methodology like Lean or Six Sigma or any other for that matter.

The genesis of the issue may be analyzed in depth across broad causal categories taken as suspect parameters. Here though, we may take route of prognosis without of course any prognostication.

In General

The very words 'Continuous' and 'Improvement' may be seen as implying the following:

1. For any 'Improvement', a baseline is required against which to measure or judge any change that might be expected in the desired direction.

2. For 'Continuity' in anything – and in the discussions here, in 'Improvement' – implies that the results of the change (i.e. improvements made) should be made to improve (i.e. change further in the desired direction).

Now, message of these deceptively simple statements takes a clever execution to yield the requisite result. The principle may be well illustrated with an example.

In the period when the heydays of the Trade Unions were not yet completely over, a tyre manufacturing giant, had two consecutive successful Labour Agreements demanding each time 10% rise in labour productivity index and getting 5% rise in the Agreement. This index was linked with the pay rise under negotiations. Not much had changed in this almost a decade long period as regards manufacturing method (barring a few exceptions; which were addressed) and thus the new team questioned (itself) its wisdom of demanding 10% rise and settling the Agreement with 5% rise.

After some intense deliberations, it decided to create a baseline ascertaining a feasible rise in labour productivity with the current method and arrived at the figure with a dialog in confidence with individual departmental leader representatives. The figure was 40%. The baseline was established.

Till this baseline was established, iterative efforts were required at every Agreement which hitherto could be dispensed with. Not only that, any change in method, in effect, was expected to give rise in labour productivity over & above this 40% mark!

Examples of continuity in improvements in general are a plenty; e.g.

A. In Communications – Postal Comm.→ Wired Comm. →Wireless Comm.
B. In Technology – Valves → Transistors → Integrated Circuits (Ics) → …..
C. In Gadgets – Pagers → Mobiles with ever innovative features → …..
D. In Appliances – 2in1s with 4 battery cells → 2in1s with 2 battery cells.

The first three may be thought of as disruptive or near disruptive changes but the last one is definitely an incremental continuous improvement.

We can notice that the continuity in improvements was geared towards customers in each case but in each case it wasn't customer who was defining the requirement although she grabbed the offerings with both hands when presented. Those were the enterprising spirits which sensed the commercial worth of the new ideas and nurtured the same to fruition. This capability which is not common in a natural parlance is what attempted to be systematized by various methodologies of Continuous Improvement.

So, to inculcate Continuous Improvement, one needs to borne enterprising outlook.

In Particular

It would take a separate article or rather series of articles to write about Lean or Six Sigma methodologies (or a combined connotation Lean Sigma) of the Continuous Improvement. Here, we would better delve upon contexts in which these seemingly different emphasizes emerged. This would also tell us about creating a baseline and imbibing the Continuous Improvement approach in a real world scenario.

Emergence of Lean could be traced back to 1950. It was a post world war II period. Japan had suffered crushing defeat in more ways than just the material one. Neither it had money as Capital for investing in business nor was it there as purchasing power with common Japanese.

With this back drop Toyota (then known as Toyoda) under Taiichi Ohno benchmarked Ford for making its mark in the global automotive industry. Ford then had an iconic status in this industry manufacturing and selling millions of vehicles across the globe. Ford, though famous as proponent of mass production was perhaps the first to recognise and achieve 'flow' in its manufacturing processes; albeit, the processes were set for very high volume output.

Cash starved Toyota then took to focussing on the 'cost' and cash flow and for this the first thing it decided that the 'mass production' business model of Ford was not for team Toyota to follow. It noticed the power of 'flow' but it vowed to achieve it in small volume production which was call of the day for Toyota.

What followed is history. Ohno along with his able teammates like Shigeo Shingo tried perfecting the new model over a decade what the world know today as Lean Manufacturing. In Ohno's words,

"All we are doing is looking at the time line from the moment the customer gives an order to the point when we collect cash. And we are reducing the time line by removing the non-value added wastes."

This focus on 'value adding' and 'non-value adding' activities is at the heart of the Lean methodology. The important thing here to note is that the term 'value' is defined from the point of view of the customer. All the tools which got developed, be it VSM (Value Stream Mapping), SMED (Single Minute Exchange of Die), Kan Ban (a signalling card in Japanese) or any other one had this singular focus on customer value and how to achieve it fast.

Six Sigma appeared on the stage of the global industry in early eighties, at Motorola in the USA. It wasn't to copy the competitiveness of the Japanese industry; particularly the auto-industry which was painfully discovered by the US auto industry in the seventies and Toyota now became the possible benchmark for the world auto-industry. Instead, the sheer progress of technology demanded high precision in industry outputs at the same time it equipped the industry with computing capabilities which were commercially inaccessible till then and could be used for crunching the data.

Sigma which a statistical unit of measuring variability of the output against the desired level could be easily calculated now and kept track of in the multi-staged complex manufacturing environment. The acceptable industry norm then was three sigma deviation (+ or -) from the desired level. This resulted in around 2,500 to 3,000 defectives in a manufacture of 1,000,000 pieces of products.

Motorola, for one of its products – the Pager, attempted to control the variability in its manufacturing processes within six sigma limits vis-a-vis the usual three sigma limit. In lay person's language, it made the manufacturing process doubly capable than what was demanded resulting in only 3 to 4 defectives as against 2,500 to 3,000 defectives in a production of a million pagers. Practically zero defects!

Creating baseline in such kind of assignments entails first defining what performance parameter/s we would term as a defect. Then the entire manufacturing process requires to be measured at multiple stages for respective defect/s. Improvements then are attempted based on the analysis of the measured data. These are in fact the phases of progress of any six sigma project which is taken up for process improvement; DMAIC, which stands for Define, Measure, Analyze, Improve and Control. Control here means sustaining the improvements and at least not allowing reversing the gains if not improved further.

It would be worth noting that depending upon the organizational priority, in both the cases above, the executive team came up with very pertinent responses. These were upheld and institutionalized by the top managements. In turn these became new methodologies and management thinking and execution styles. The basic approach was towards Continuous Improvement but in the context of the current needs.

It may further be noted that basic tools were not all that new. The basic tools which are used in Lean or Six Sigma like Pareto chart, Cause & Effects diagram or even more statistical ones like the Control Charts and Design of Experiment (DoE) were not new and were in vogue from 20s and 30s. But, the ingenuity of these and subsequent organizations which embarrassed these methodologies rests in developing newer tools as required and use old and new tools comprehensively; creating in the process newer models of application.

In summary we may say that in inculcating the habit of Continuous Improvement the enterprising outlook is required to wrought through the systematic and patient application of tools as developed or used towards a clear future state in mind vis-a-vis the base line developed.

About the Author

Manoj Tamboli, a qualified Industrial Engineer and a practising Certified Six Sigma Black Belt (ASQ), has experience of over 25 years majorly in Industrial Engineering interspersed that with Marketing.

Having strong Consultancy exposure, his multifaceted assignments included Methods Improvement (O&M), Productivity Improvement, Training, Project Appraisal, Layout, Production Norm Fixation, Job Evaluation and Manpower Assessment.

The assignments spanned cross-section of industries including Manufacturing, Process, Assembly and Fabrication covering Steel, Healthcare, Packaging, Gems & Jewellery, Tyre, Automotives, Garments and Ship-building.

ISO 9001:2015 Quality Management System(QMS)
-- Making Excellence a habit--

by Dr. P. Poddar, Sr. Faculty & G.B. Member

SO 9001:2015 is the new revised and updated version of the well-known Quality Management System Standard released on 15th September 2015. Hence most of us are curious to know 'What is ISO 9001:2015' , 'What are the changes?' And also 'Why is it required?' Before trying to know answers to these questions, let us try to understand the changing concept / meaning of the term **'Quality'.**

CHANGING CONCEPT / MEANING OF QUALITY

By the term **'QUALITY'** we conventionally mean 'the best'. But now the meaning is shifted to fulfillment of **'customer needs and expectations both 'stated and implied' and 'achievement of full customer satisfaction leading to customer delight'**

WHY QUALITY?

- ❖ Quality reduces cost.
- ❖ Poor quality results in losses.
- ❖ Customer expects better quality and lower affordable costa
- ❖ Competitors are constantly working for better quality.
- ❖ We all like quality.
- ❖ Quality improves business. '
- ❖ It improves teamwork.
- ❖ Total quality means win/win situation (i. e. win for both the parties)

When we sell our products, our customer expects better quality. He will have confidence in us only if we give the required quality consistently. We can't restrict our business to just sell & make money. We have to go beyond this and try to understand his/her requirements and help the customer / buyer in use of our products with the aim of increasing his/her productivity. This improves our goodwill and trust. We have to make this a part of our quality policy and always abide ourselves by it.

THE QUALITY POLICY WILL BE IMPLEMENTED THROUGH FOLLOWING ACTIONS:

- Analyze customer complaints and feedback.
- Liaise with suppliers / vendors / external providers to maintain the required quality standards and to improve them.
- Training employees to improve their work skills, team spirit and quality / productivity improvement
- Understanding customer requirements and work towards fulfilling them.
- To improve the quality management system. This is where ISO 9001 comes in the picture.

WHAT IS ISO ?

The International Organization for Standardization (ISO) is the specialized international agency for Standardization, at present comprising the national standard bodies of over 150 countries including India, which is represented by BIS.

The task of drafting ISO standards is assigned by ISO to a Technical sub-committee (TC). For ISO 9000 family of standards TC-176 is responsible for reviewing and updating the QMS.

Many people tend to think that **ISO 9001 Certification** is guarantee of the product quality, but it is not so. Quality of end product is certainly the final objective of the exercise but **ISO 9001** ensures that the systems and procedures of the organization are capable of producing consistently the expected quality of product / service which includes lower costs, It means that every individual of the organization - be it a Workmen or a Manager - will try his / her best to fulfill customers' needs & expectations.

In short 'ISO 9001' is *not a standard for quality of the product* but for the quality management system of the organization. However, to achieve all this, what is expected from everybody of us?

- Every individual shall inculcate discipline in optimal working as a team, which will ensure the product/service quality to meet / exceed customer needs / expectations.
- A new productive work culture shall be developed.
- Controls shall be exercised at every vital process step and monitoring & measurement and required tests shall be conducted to ensure product / service quality.
- Departmental level relevant process / quality documents shall be written down.
- Relevant / required records shall be maintained neatly in structured formats.

There are three core standards in ISO 9000 family of standards:

ISO 9000:2015 describes fundamentals of quality management systems and specifies the terminology for quality management systems.

ISO 9001:2015 specifies requirements for quality management systems for use where an organization's capability to provide products that meet customers' requirements and also fulfill the applicable regulatory requirements with evidence at all times.

ISO 9004:2009 provides guidance on improving quality management systems, including the processes for continual improvement, which contribute to the satisfaction of an organization's customers and other interested parties and stake-holders.

QUALITY MANAGEMENT SYSTEM REQUIREMENTS (Clauses of ISO 9001:2015):

1. Scope
2. Normative references
3. Terms and definitions
4. Context of the organization
4.1 Understanding the organization and its context
4.2 Understanding the needs and expectations of interested parties
4.3 Understanding the scope of the quality management system
4.4 Quality management system and its processes

5. Leadership
5.1 Leadership and commitment
5.1.1 General
5.1.2 Customer focus
5.2 Policy
5.2.1 Establishing the quality policy
5.2.2 Communicating the quality policy
5.3 Organizational roles, responsibilities and authorities

6. Planning
6.1 Actions to address risks and opportunities
6.2 Quality objectives and planning to achieve them
6.3 Planning of changes
6.4 Work Environment

7. Support
7.1 Resources
7.1.1 General
7.1.2 People
7.1.3 Infrastructure
7.1.4 Environment for the operation of processes
7.1.5 Monitoring and measuring resources
7.1.5.1 General
7.1.5.2 Measurement traceability
7.1.5.3 Organizational knowledge
7.2 Competence
7.3 Awareness
7.4 Communication
7.5 Documented information
7.5.1 General
7.5.2 Creating and updating
7.5.3 Control of documented information

8. Operation
8.1 Operational planning and control
8.2 Requirements for products and services
8.2.1 Customer communication
8.2.2 Determination of requirements for products and services
8.2.3 Review of requirements for products and services
8.2.4 Changes to requirements for products and services
8.3 Design and development of products and services
8.3.1 General
8.3.2 Design and development planning
8.3.3 Design and development inputs
8.3.4 Design and development controls
8.3.5 Design and development outputs
8.3.6 Design and development changes
8.4 Control of externally provided processes, products and services
8.4.1 General
8.4.2 Type and extent of control
8.4.3 Information for external providers
8.5 Improvement
8.5.1 Control of production and service provision
8.5.2 Identification and traceability
8.5.3 Property belonging to customers or external providers
8.5.4 Preservation
8.5.5 Post-delivery activities
8.5.6 Control of changes
8.6 Release of products and services
8.7 Control of nonconforming outputs

9. Performance evaluation
9.1 Monitoring, measurement, analysis and evaluation
9.1.1 General
9.1.2 Customer satisfaction
9.1.3 Analysis of evaluation
9.2 Internal audit
9.3 Management review
9.3.1 General
9.3.2 Management review input
9.3.3 Management review output

10. Improvement
10.1 General
10.2 Non conformity and corrective action
10.3 Continual improvement

QUALITY AUDITS:

Audits are done to find answers to the following questions?
(1) Do you 'say' what you 'do'?
(2) Do you 'do' what you 'say'?
(3) Do you keep records of what you do?

Audits are carried out to find out whether work is being done as per the manuals / requirements of the ISO 9001:2015 Standard & customers' requirements. It's main purpose is to find out non-conformities in the system so as to facilitate correction / corrective action/s to eliminate them and to prevent recurrence and also initiate preventive action/s to continually improve the product, processes & quality management system.

There are 3 types of Audits:

(1) Internal Audit (First Party Audit) &

(2) External Audit (Second Party Audit)
These are the audits carried out to know) non-conformities in advance so that they are eliminated before the final audit.

(3) Final Audit by the Certifying Body (Third Party Audit)

We can't afford to have any non-conformities in this final Audit, else the Certifying body may delay issue of ISO 9001 till NCs are closed / not issue the Certificate.

AUDIT CONSISTS OF VERIFICATION OF THE FOLLOWING AREAS:

- ❖ Quality Procedures
- ❖ Quality Documents
- ❖ Quality Records
- ❖ Process Control Parameters
- ❖ Customer Complaints
- ❖ Customer Feed back and Satisfaction
- ❖ Statutory and Regulatory requirements
- ❖ Calibration (where applicable)
- ❖ Status and fulfillment of Quality Objectives
- ❖ Results of Internal Audits
- ❖ Management Review meetings
- ❖ House Keeping
- ❖ Effectiveness of Training

HOUSE-KEEPING:

Conventionally, by house keeping we tend to mean cleanliness of the floor. However, it is not enough for ISO 9001. House keeping includes cleanliness and orderliness of everything we have - Material, Tools, Instruments, Stores Items Office records etc., so that they are readily accessible whenever needed and anything that is not needed / not used is dispositioned.

BENEFITS OF ISO 9001:

- · Following benefits will be achieved if the above requirements are met.
- · Consistent quality of product & services.
- · Scope for increase in exports.
- · Knowledge of customer requirements.
- · Competitive edge in the market.
- · Efficient use of 4 M's "Men, Machine, Material and Methods"'.
- · Hence increase In the 5th 'M' Money
- · Reduction in 5 R's: "Rework, Recall from customer, Regrets, Returns and Rejects".
- · Improved customer confidence in our organizational excellence.
- · Disciplined Team working
- · Pride of working with an ISO 9001 certified Company.

How does quality relate to productivity ?

by Dr. P. Poddar

Do these performance variables reinforce each other or are they mutually exclusive? Must improved quality come at the expense of productivity?

Management traditionally has viewed quality and productivity essentially as tradeoffs. To achieve significant improvements in one, some degradation in the other must be accepted. Quality could only be improved at the expense of productivity and vice versa. Yet many firms today operate under the philosophy that improved quality results in improved productivity.

If quality is viewed in an absolute sense—improved quality equating with absolute goodness or tighter tolerances—it may indeed be difficult to improve quality without added cost. If on the other hand quality is viewed as conformance to specifications, a relationship to productivity becomes more apparent. If the product is produced with defects, then it must be reworked, reprocessed, or reproduced. The result is more resources—people, material, and equipment.

This leads to the concept of process quality, which has a clear and direct correlation with productivity. While our finished products may ultimately conform to specifications, the quality of the process that produced those products can vary widely and will have a major bearing on the productivity of the organization.

Poor quality performance increases the inputs required to produce a given amount of good output. Rework certainly increases the amount of labor required and probably increases the capital, material, and energy inputs as well. Waste and scrap increases the need for tighter inspection and controls, which of course require added resources.

If substantial amounts of product must be reworked or reprocessed, if raw materials are defective, if waste and material losses are excessive, if scrap losses are high, the organization can never reach the higher levels of either quality or productivity.

With poor quality a substantial amount of organization's resources must be devoted to correcting defects and handling wastes rather than producing goods. As quality improves, the resources required to produce a given amount of output decreases, and that translates to improved productivity.

Quality cannot be inspected into the product. According to Edward Deming, "You don't get ahead by making products and separating the good from the bad, because that is wasteful."

The concept of conducting extensive inspection activities in order to catch the defective items is becoming outdated. Today's emphasis is on the prevention of defects rather than inspection. This requires the collective effort of the employees and the management.

Quality is everyone's job. Accountability for quality should lie with those doing the work. The role of quality professional is shifting from an enforcer to a facilitator—one who educates, trains, and advises. He is the person who should establish a culture for quality improvement in the organization.

Just as productivity improvement must be an explicit responsibility of everyone in the organization, so must quality improvement. It should be an integral part of everyone's job.

Vendor Risk Management

by Mrs. Latha Sunderkrishnan

1. Introduction

Companies today have third party contracts with various vendors. Most of the processes are outsourced to various companies. This is the most convenient and flexible way to work, so that overall management activities are limited to just vendor management alone. The quantum of work that is outsourced to third parties include not just IT, data management and security providers, but also facilities management (cleaning HVAC – Heating, Ventilation and Air Conditioning) along with any vendor that may have access to network, data or facilities.

However, outsourcing to third parties comes with significant risks such as adverse vendor incidents, and sometimes even penalty from regulators.

In today's paperless and highly competitive environment, it is in the interest of the company to safe guard its information Therefore it becomes imperative that the company does everything to manage and maintain its IT infrastructure. This means a need to evolve a Vendor risk management, which will look at various aspects of information security associated with the vendor. This would include management of risks right from identifying the vendor, contract management, risk management, Business continuity plans etc. Managing external vendors should be a key competency for every enterprise and can lead to optimally mitigated risk and significant benefits.

In order to establish an effective vendor management process with goals and objectives, the enterprise needs to ensure the following:

- Vendor management strategy is consistent with enterprise goals.
- Effective cooperation and governance models are in place.
- Service, quality, cost and business goals are clearly defined
- All parties perform as agreed.
- Vendor risk is assessed and properly addressed.
- Vendor relationships are working effectively, as measured according to service objectives

2. Approach

1. A Risk assessment needs to be done for choosing the vendors. The controls implemented need to be evaluated and if need be the policies and procedures need to be audited. The selection procedure should have been performed with due-diligence. This should be properly documented based on needs and appropriate criteria.
2. Site visits to the vendor office needs to be carried out. The financial capabilities of the vendor needs to be assessed, along with previous experience, staff capabilities, any pending litigation or customer complaints etc.
3. Skill levels and training of the vendor needs to be assessed. This will help in understanding their capabilities for the contractual work undertaken.
4. Checks for adequate documentation present to convey the program management of the vendors to the relevant staff of the company.
5. The contracts need to be well defined. It should be vetted by internal/external legal counsel.
6. Adequate staff should be deployed in order to fulfill the requirements of the contract. The third party staff should be well aware of their roles and responsibilities. They should also have had confidential agreements signed.
7. All records pertaining to activities needs to be managed in an organized manner, Methodologies for updating and archiving documents need to be defined.
8. The results of the activities performed by the vendor needs to be reported to the management on a timely basis. This should be reviewed by Management periodically. There should be a feedback mechanism in place. Thus the performance of the vendor needs to be evaluated continuously.
9. All precautions need to be taken to ensure that the data of the organization is protected and secure at all times.
10. The organization should ensure that compliance is met and all policies and procedures are complied with. It should also plan for regular audits of the third party process and ensure that those are also complied with at all times.
11. In case if the outsourced vendor is a foreign company, then the organization should take care that the legal requirements are met with. There should be penalty clauses or fines that can be adhered to.
12. The vendor organization should also have Business Continuity Plans and Disaster Recovery plans in place in case of any disruptions. It should ensure that the activities are performed in case of a disaster.

3. COBIT 5 framework for Vendor Management

COBIT 5 has defined a fame work for Vendor Management. Here it defines the roles and responsibilities of the different stakeholders in the contractual agreements. The RACI (responsible, accountable, consulted and informed) chart is as shown in the figure on the next page :

Vendor Management RACI Chart				
Contractual Relationship Life Cycle				
Stakeholders	**Setup**	**Contract**	**Operations**	**Transition -Out**
C-level executives	A	A	A	A
Business process owners	R	R	I	R
Procurement	R	R	I	R
Legal	R	R	C	C
Risk function	C	C	R	R
Compliance and audit	C	C	C	C
IT	R	R	R	R
Security	R	C	R	C
Human resources (HR)	C	C	C	C

C-level Executives - They are accountable for the vendor management process depends on the scale of outsourcing

Business Process Officers - Business Process Officers should be actively involved in the vendor management life-cycle

Procurement - Many responsibilities within the vendor management life cycle belong to the procurement function

Legal - To effectively mitigate vendor-related risk, the legal function should be involved throughout the entire vendor management life cycle.

Risk Function - The risk function should be consulted throughout the vendor management lifecycle to obtain a complete view on risk that is related to the relationship, services or products.

Compliance and Audit - The compliance and audit functions should be consulted throughout the vendor management life cycle to ensure compliance with internal and external laws, regulations and policies

IT- The IT role is significant because its members may be more familiar with the products and services and their market availability.

Human Resources - The HR stakeholder should be consulted throughout the vendor management lifecycle to ensure compliance with the enterprise's worker statutes, local regulations, and code of conduct and labour law.

4. Managing a Cloud Service Provider

Cloud computing security is the set of control-based technologies and policies designed to adhere to regulatory compliance rules and protect information, data applications and infrastructure associated with cloud computing use.

The cloud is a shared resource, hence identity management, privacy and access control are of particular concern. With more organizations using cloud computing and associated cloud providers for data operations, proper security in these and other potentially vulnerable areas have become a priority for organizations contracting with a cloud computing provider.

Cloud computing security processes should address the security controls, the cloud provider will incorporate to maintain the customer's data security, privacy and compliance with necessary regulations. The processes may also include a business continuity and data plan in case of a cloud security breach.

Cloud using the public cloud effectively is an IT governance issue. The impact cloud is having on the organization is initially assessed in order to devise a strategic and workable approach.

It is important to identify and categorize data already within the organization and the business processes around them. For example, storing credit card data in house currently and outsourcing the storage would mean an increased scope for PCI DSS (although outsourcing the payment transactions themselves to an approved provider usually makes sense). Storing personal data could have legal ramifications, if stored or replicated outside the country of the data subject

Firstly there is a need to address the new threats that virtualization poses within cloud computing. The second is the ability for SMEs to perform due diligence effectively for an outsourced provider, given they rarely have in-house technical or legal expertise.

Google Plus cloud service helps me keep my contacts, calendars, photos, etc., synchronized across my various computing devices. Thus I like this feature and service. When suddenly I had to switch mobiles as my previous one was not working, I got back all my data intact from this service. But I am also careful about the data I put there.

5. Metrics for SLA

SLA would define the service level agreements between the vendor or the service provider and the company. It would also include how the services would be measured.

This would define if the expectations are met in terms of the services provided.

How to go about choosing the various factors for the Metrics?

Firstly there is a need to define the KPIs that could be used to measure the Metrics. Secondly it would include the type of KPI like

- Objective – Number of Major incidents in a month
- Subjective – Improvements in client satisfaction.

When selecting KPI, need to understand what the indication of value to the customer is:

- Enhanced performance in the business
- Constraints removed from the business
- Availability & Reliability of the Service
- Performance of the service
- Security of the service
- Service Continuity (ability to recover from disaster)

Metrics type could be

- Service metrics which reflect the end-to-end quality of service or 'user experience'
- Process metrics to inform the service provider and customer of the effectiveness (achieving goals) and efficiency (use of resources) of key activities within the service delivery function.
- Technology metrics to inform the IT provider at the component level, enabling the identification of issues and improvement opportunities

Penalty clauses should be used only if

- there is a reasonable lack of performance
- if it is only the service providers fault, which means that the company is not at fault at all
- It should be done in a fair manner with overall understanding of the incident.

Above all else, never forget the #1 rule – Nothing should be included in an SLA unless it can be effectively monitored and measured at commonly agreed points.

6. Third Party Audits

These can be conducted once in a while depending on the criticality of the services. For these Audits, the general controls used are:

- **Risk Assessment** - Based on the risks pertaining to Confidentiality, Integrity and Availability, access should be provided to the third party. Access control rights can be given based on sensitivity of data. This should also be taken care as a clause in the contract. The Risk Assessment can decide the further action that needs to be taken.

- **Screening** - Background checks for vendors/partners need to be performed vigilantly. This is very important aspect of vendor management. The company also needs to be checked for its financial viability. Depending on the criticality of the business and contract, audits could also be performed to their existing information security controls and processes.

- **Information transfer Agreements** between the external party needs to ensure that need to address that the transfer of information between both the parties happens in a secure manner.

- **Selecting clauses in the agreement** - Based on the risks assessed, the clauses should be present in the agreement. Penalty clauses based on the risk identified should exist. Turnaround time should also be mentioned in the clause.

- **Access control -** Accessing data by the third party contractors need to be monitored at regular intervals. It should be given only on needs basis and minimum access necessary should be provided.

- **Confidentiality and Non-Disclosure Agreements** - Confidentiality and non-disclosure agreements need to be signed by all employees of the third party who are contracted by the organization. This needs to be reviewed on a periodic basis.

- **Compliance monitoring** - Ensure that the third party complies with all clauses pertaining to security. This needs to be monitored and also they can be audited for the same. This needs to be controlled based on access and other rights on data.

- **Termination of the agreement** - When the agreement is terminated or the contract has expired and the company has decide not to extend the contract, the proper controls for this needs to be monitored, All assets should be returned by the vendor, and all access rights removed for the vendor. This again needs to be part of the contract.

7. Need for an effective vendor risk assessment

An effective and efficient vendor risk assessment provides benefits to the enterprise in terms of:

- Delivery of Costs savings
- Meeting Stakeholder needs
- Risk Management
- Assurances of Quality
- Standardization
- Flexibility and efficiency

IT Security has become an important aspect for any business. Most Companies are not willing to budget enough for IT security in general and vendor risk assessment in particular, despite the fact that Security of data processed by the enterprise including vendor resources is pivotal. Data Security may not be the primary business of any company, so companies do not spend higher amounts for IT security in general and in particular for vendor risk assessment.

Financial Services companies are inclined to have higher budgets for IT security in general and for vendor risk assessment as compared to other types of companies. This is because regulators have mandated security and confidentiality of customer data processed by these companies, albeit using many vendors. Consequently, these companies are forced to implement IT security standards. A vendor risk assessment will assure us that a vendor has become conscious of protecting the confidentiality, integrity and availability of the data and the associated information assets. This brings a culture change at the vendor company. Controls of IT security can be implemented only if the management of the vendor company supports the initiative.

References:

http://citebm.business.illinois.edu/TWC%20Class/Project_reports_Spring2006/Business%20Risk%20Management/Manzoor/project%20report.pdf
http://www.employeeservices.gov.sk.ca/projectsecurity
www.isaca.orgVendor Management Using COBIT 5

About the Author

Mrs. Latha Sunderkrishnan (CISA, ISO27001 LA, COBIT 5 Foundation) is an Executive director at Valsec solutions India,http://valsecsolutions.com/. She is an Electronics Engineer with more than 20 years of experience in IT with various multi-national organizations working with a wide variety of technologies. She has worked in Information Security Audits and Consulting, Information Security trainings, Project Management, Quality Assurance and Customer Support.

Email: lsunder@hotmail.com
lathasunderkrishnan.valsecsolutions.com

****

NCQM's BEST EDUCATIONAL QUALITY ENHANCEMENT TEAM (BEQET) PRESIDENT AWARD-2016

To encourage Quality Improvement Teams in Educational Institutions in the country, NCQM has instituted **Best Educational Quality Enhancement Team (BEQET)** President Award. These annual awards have been introduced since 2006. The first award competition was held on January 11, 2007 and is being pursued year after year.

One of the thrust areas of NCQM has been to promote Quality Values among educational institutions in our country. For the past few years, NCQM's senior consultants have been successfully facilitating numbers of schools and colleges in their journey towards quality improvement.

It is heartening to note that, as an outcome of this process of facilitation, a large number of Quality Improvement projects have been successfully undertaken and many more are being attempted.

The improvement areas covered so far are in academics, administration, infrastructure and house keeping. All of them have been following structured quality improvement methodologies, using the powerful team approach coupled with applications of appropriate statistical techniques.

To make this event a memorable one, entries are specified from Schools, all Colleges, and Technical / Management Institutes.

1. Entry into competition:

1.1. Each school or college or institution can nominate upto three (3) teams to compete for these awards.

1.2. Only those teams whose projects have been completed during the past two years, and the benefits are being maintained are considered for these awards.

1.3. Each nomination is required to be made on the Standard Application Form and submitted to NCQM, along with entrance fee.

For details, list of participated colleges and their presentations visit our website. Application form can also be down loaded from the website **www.ncqm.com**

Improvements in Oil & Gas Industry a summary

by Mr. S.V.Viswanathan, GB Member & Chairman Publication Committee,

Recently I had done a literature review of over 100 projects of Oil & Gas industries and the following are my conclusion:

1. The industry is fighting a steep fall in oil prices
2. The industry is highly cost conscious and across the world they are looking at Lean, Six Sigma & Lean Six Sigma to give them good results.
3. It is not only the Upstream but also middle and lower stream, that are looked for possible projects on improvements
4. Since the prices are fixed for retail price, many a times the cost of production matters more
5. Some of the projects taken for improvements are as listed below:

- 5S project across the organization
- Introduction of automation or Attendance system
- Budget reduction by 10% across all functions
- Business continuity and succession plan to ensure smooth transitions
- Competencies up gradation through effective training
- MIS &Create Dashboards in all desks for projects for better monitoring & control
- Create SOP KPI & Job evaluation
- Downtime reduction by 20%
- Improvement in Communication
- Improvement in distribution costs
- Improvement in losses and demurrages
- Improvement in recruitment lead time
- CSI
- Improvement of culture through Ethical Code, Conduct code etc
- Improvement of Legal approval time
- Introduction of SAP to reduce all round lead time, and costs
- Inventory reduce by 50%
- Invoice to customer: Variation against actual and how it can be reduced
- Knowledge sharing by trained people to other departmental members and others
- Network should be working 98% of the time
- Payment of Salary: Reducing exceptions
- Power Factor optimization
- Process reengineering for simplification
- Productivity improvement by 20%
- Records maintenance and digitization
- Recruitment of competitive staff
- Reduction in accounts payable
- Reduction in administrative costs
- Reduction in cost of maintenance
- Reduction in cost of marketing
- Reduction in Cost of recruitment by 10%
- Reduction in costs of exploration
- Reduction in cycle time for report generation
- Reduction in diesel for generators
- Reduction in energy cost in stores
- Reduction in energy costs
- Reduction in error reports or number of JVs passed
- Reduction in Lead time
- Reduction in lead time for bill clearance from 1 day to 4 hours
- Reduction in lead time for project clearance from 1 week to 4 days
- Reduction in project overshoots
- Reduction in space by 25%
- Reduction in variation of costs to the budgeted
- Reduction of downtime
- Reduction of inventory
- Reduction of network downtime
- Reduction of procurement time
- Royalty to Govt: Variation how it can be reduced
- Safety system introduction and monioring
- Salary payment through banks
- Security system strengthening
- TPM
- Uptime facilities (Improving efficiency)
- Use of CC Tv& Security
- Use of supplier evaluation for procurement
- Use of TPM and hence reduction of downtime
- Use of Visual management
- Visual management in stores

Internationally the application of both Lean and six sigma has been there more focused for the last two decades and the last decade as LSS (Lean Six Sigma).

Organizations have clearly defined targets, roles and training of personnel.
Many of the organization even though government held have learnt to come out of the shackles and aim for breakthrough results.

Ever since the BP disaster leaders are very careful about procrastination and some of the popular projects include effect on environment such as oil and gas leakages, waste water treatment and re-cracking old wells.

To make it easy for the reader some of the department wise projects are listed herewith, even though this may be customized and department functions vary.

1. Corporate strategy and new business

a. Budget preparation: Reduction in lead time
b. Corporate plan: Reduction in lead time
c. 5S
d. Costs reduction

2. Research & Data

a. 5S
b. Improving the efficiency of data management & archiving
c. Use of DFSS for new products
d. Use of DOE for better and efficient processes

3. Well, reservoir and Production

a. Reduction in variation of costs to the budgeted (Improving efficiency)
b. Reduction of cycle time of processes (Improving efficiency by reducing cycle time)
c. Reduction in cycle time of report generation (Improving efficiency)
d. Uptime facilities 95% (Improving efficiency)
e. 5S
f. Training of people on specialization (Improving efficiency)
g. TPM (Improving efficiency by reducing down time)
h. Re-cracking of old wells through better technologies.

4. Operations

a. Building up total skill sets lacking at all functions.
b. Reduction in lead time (Reduction in costs)
c. Reduction in project overshoots
d. Power stabilizing
e. TPM
f. Job evaluation and proper PMS
g. Process reengineering
h. Communication
i. Reduction of downtime
j. Business continuity
k. Team work & Leadership building
l. Energy reduction

5. Facilities Management

a. Use of 5S and Visual Management
b. Reduction in cost of maintenance as a target (Reduction in costs)
c. Use of TPM for maintenance related activity

6. Geophysics Geology

a. Reduction in costs of exploration & lead time (Reduction in costs)
b. Use of TPM for maintenance related activity
c. Building up skill sets.

7. Supply Chain

a. Building up total skill sets lacking at all functions.
b. Reduction in lead time (Reduction in costs)
c. 5s
d. Proper storage system including online data.
e. Supplier evaluation and ordering accordingly
f. Safety management in stores
g. Reduction in inventory
h. CC tv and security

8. IT

a. Increase Network utilization i.e. Working at all time
b. Budget costs: Reduce by 10%
c. Downtime reduction by 20%
d. 5S
e. Introduction of SAP or ERP to reduce lead time
f. Cloud based storage of data
g. Use of BPOs for customer relations

9. Legal & Board Secretariat

a. Improvement of legal approval time or reduction in lead time of approval process (Improving costs and lead time)
b. Reduction in Legal Costs

10. Recruitment & Organization Development

a. Improvement of recruitment time from 6 weeks to 4 weeks (Improving costs and lead time)
b. Reduction in cost of recruitment by 10% (Reduction in costs)
c. Knowledge sharing by way of conducting lectures by person attending programs there by cost of training goes down (Cost of training reduction)
d. Outsourcing talents including getting people on contract

11. Marketing, Export & Import

a. Improvement of turnaround time for agreements (Improving costs and lead time)
b. Reduction in cost of marketing as % of turnover (Reduction in costs)
c. Reduction in costs on Losses and demurrages not meeting agreement clause
d. Reduction in hoarding costs
e. Reduction in inventory of ready stocks

12. Finance:

a. 5S (Improves the office working)

b. Invoice to customer: Actuals and how variation can be reduced. (Improves customer relations)

c. Payment of Salary: How exceptions can be reduced (Improves employee satisfaction)

d. Royalty to Govt. compliance variation how it can be reduced. (Improves Govt working capital)

e. Recruitment of competitive staff

f. Reduction in variation of costs to the budgeted (Improving efficiency)

g. Reduction in lead time of clearance from 1 week to say 4 days? (Improving efficiency)

13. Accounting & Reporting:

a. Reduction in variation of costs to the budgeted (Improving efficiency)

b. Reduction in lead time of clearance from 1 day to say 4 hrs? (reducing cycle time)

c. Reduction in error reports (Improving efficiencies)

In conclusion Oil & Gas industry too is in the grip of recession for quite some time now. Every money saved improves the bottom line.

Lean Six Sigma helps these organizations in breakthrough results be it the organization is an Operator or as partners, or be it in the Upstream or downstream.

A focused team under clear strategy of the company will ensure that Projects are easily identified, targets set, all stake holders are trained and deadline set.

Normally these are success stories. There will be laggards or non-achievers if the projects are taken up to please politicians or for record purposes.

A simple project on 5S in itself contributes very handsomely to the organization followed by system and procedures including relevant standards.

When many organizations are in the trend for Business excellence there are others who want to start but lack the will to do.

In the end it always pays well if organization adopt improvement projects be it a simple 5S or a kaizen blitz or going further in to Lean and Six sigma projects.

****

CONGRATULATIONS !!

On 23 June 2016,

ABP News (a popular channel) presented 'National Education Award 2016 - 'Best Professor General Management'

to Dr. Divya Singhal, Associate Professor,

Goa Institute of Management.

Dr. Divya is a Fellow member of NCQM.

"Total Quality Management is a journey, not a destination"

- Berry

Innovative Learning Techniques

Prof Anita P Agrawal SIES Sion west

Education is a light that shows the mankind the right direction to surge. The purpose of education is not just making a student literate but adds rationale thinking, knowledgeablity and self-sufficiency. When there is a willingness to change, there is hope for progress in any field. Creativity can be developed and innovation benefits both students and teachers. Continuous learning and knowledge enhancement have become more important today than ever before. Upgrading and updating knowledge in many streams have also become more rapid owing to the continuous changes in technology, process and maturity of human science.

Organizations today are faced with the challenge of continuously evolving with learning becoming a key anchor to this. There is little doubt that information and communication technologies (ICT) are among the defining technological transformations of the late 20th and early 21st centuries. The changes in society brought about by ICT advances equally lead to new types of education systems that are not restricted to traditional education providers. They seemingly heighten both the effects and expectations of the advent of new pedagogies. We may witness such changes as the rise of Designing Learning Activities with Mobile Technologies new knowledge source providers, including the entertainment industry, defining themselves as knowledge producers and educators.

Educators have made considerable efforts to exploit the unique capabilities and characteristics of mobile technologies to enable new and engaging forms of learning activity. For instance, Korean commuters, using third generation (3G) mobile handsets, can access a multimedia-based English language learning tool supported by location aware services. This attractive pilot service holds out the promise of unlimited access to educational resources beyond the traditional institutional boundaries, amalgamating currently separated learning activities into one with an integrated technical platform.

Teaching in classroom using chalk and talk is “one way flow” of information. SENDER (TEACHER) RECIEVER (STUDENT) MESSAGE MEDIUM.In traditional teaching, knowledge is viewed as adapting information and a teacher or supervisor is seen as the transmitter of knowledge to students. Most of the technical applications designed to support learning have been based on traditional thinking of teaching and the assumption has been that students learn best 'from' rather than 'with' technology.

In the "with" -approach the technical applications are students' tools for selecting, collecting and sharing information with other learners. The technology acts as a tool for collaborative creative thinking and learning, not only as a source for data gathering and processing. The process involves the organizing of existing knowledge, interpretation and analysis as well as a collaborative construction of new knowledge.

A good collaborative learning process is very similar to a good research or design process. Both research and design produce new knowledge, new understanding and new products through criticizing, extending, elaborating and transforming knowledge objects, sketches and prototypes. The knowledge thus externalized is extended with the help of the cognitive resources of the whole community.

Teachers often continuously talk for an hour without knowing students response and feedback. The material presented is only based on lecturer notes and text books. Educators are always striving to find ways to make curriculum relevant in students' everyday lives. More and more teachers are using social media around lessons, allowing students to use their cell phones to do research and participate in class, and developing their curriculum around projects to ground learning around an activity. These strategies are all part of a larger goal to help students connect to social and cultural spaces.

And it's part of what defines “participatory learning,” coined by University of Southern California Annenberg Professor Henry Jenkins, who published his first article on the topic “Confronting the Challenges of Participatory Culture,” in 2006. His work sprang out of the desire to understand the grassroots nature of creativity, how projects are being shared online and what an increasingly networked culture looks like.

Various tools and technologies for Innovative learning techniques are as followed:

MULTIMEDIA LEARNING PROCESS:

I hear and I forget. I see and I believe. I do and I understand. - Confucius

Multimedia, is the combination of various digital media types such as text, images, audio and video, into an integrated multi-sensory interactive application or presentation to convey information to an audience. Traditional educational approaches have resulted in a mismatch between what is taught to the students and what the industry needs.

Since knowledge is no longer an end but a means to creating better problem solvers and encourage lifelong learning. Problem-based learning is becoming increasingly popular in educational institutions as a tool to address the inadequacies of traditional teaching.

The teacher uses multimedia to modify the contents of the material. It will help the teacher to represent in a more meaningful way, using different media elements. These media elements can be converted into digital form, modified and customized for the final presentation. By incorporating digital media elements into the project, the students are able to learn better since they use multiple sensory modalities, which would make them more motivated to pay more attention to the information presented and retain the information better.

Practice PBL and STEM Within Community Partnerships:
PBL (project-based learning) supports teachers in developing authentic learning experiences with a focus on inquiry-based instruction. Content is key, so I recommend outlining flexible project guides vetted through learning standards within the STEM (science, technology, engineering, and mathematics) subjects. For example, the traditional community helpers project can extend beyond the policeman, fire-fighter, and grocer careers by focusing on a marine biologist, astronaut, civil engineer, or architect. Then align the project guides to relevant community partners and request that they provide you with authentic problems to solve. You can guide or assist professional project partners to ensure the creation of age-appropriate questions with a focus on community impact. Align each project with a greater good by allowing young students to be change agents within their local communities. Whether it is planting milkweed for an endangered butterfly species or donating excess crops from your edible schoolyard to the local food bank, there are many ways to make impact tangible for children.

Changes in classroom practice also produce individual and collective emotional responses amongst students and teachers. In the emotional economy of a school, emotions are distributed unequally and with different intensity; some enjoy radical change, while others feel that their professional and personal identities are challenged by some reforms more than others and are therefore more risk averse. Addressing teacher identity is central as teacher attitudes, behaviours and actions in terms of how they read, re-interpret and enact policy .

As ICT has become integral to the everyday work of teaching and learning and wireless and other technologies have facilitated both connectivity and mobility in the use of ICT, distinctions between virtual and built environment have blurred. The virtual environment therefore extends and enhances the reach and depth of students in their learning – in terms of communicating and developing relationships with other students, teachers and accessing large and diverse knowledge bases.

As studies of how learning technologies are mobilised in classrooms and schools indicate, the focus has moved away from a focus on the technical, to the pedagogical and socio-cultural theories (Luckin 2010). The flexibility facilitated by laptops, thinkpads and handheld technologies, for example, facilitates a focus on pedagogical rather than technical ways of organising learning spaces as the need for computer rooms, hubs or pods disappears. It also facilitates the blending of inside/outside spaces and multiple uses within the same space, such as café/libraries (Heppell et al 2004).

Role playing and scenario based teaching:
Role playing and scenario analysis is mostly used in organizations that try to analyze a problem pertaining to the organization, and this is also used in management institutions. But the similar kind of practice can be tried in other specialization too like science and engineering. Science and engineering courses have practical but in support of those practical if students are given a scenario and other options to solve a particular issue, then the students are exposed to decision making in a given environment. For example, in teaching accounting the role of accountant can be explained by role playing technique. Invoice and bills can be given to students and asked them to assume the role of accountant. Here the real entries pertaining to transactions are made by the student and this is more practical approach to teaching where theory is supplemented by proper practical knowledge. Similar kind of technique can be applied in management, engineering and science courses.

They're not all changing education — but a few innovative ones are. Among the wide-ranging apps, sites, learning management systems, flashcard creators, and content archives, there are a few listed here that promise to make an impact on how students are going to learn in the coming years.

Classroom Connectors:
Clever streamlines the process of logging into educational apps by letting students log into all of their tools with a single set of credentials (instead of dozens).

Edmodo is a controlled social media platform for teachers, students, and parents. It allows teachers to assign and grade homework on their mobile devices, students to connect with educators and classmates, and parents to stay up-to-date on what their kids are doing at school.

Kahoot! is a user-friendly tool for designing in-class questionnaires and quizzes. A user designs a quiz, survey, or questionnaire to test the knowledge of his or her audience. Audience members can answer questions using a variety of devices. The quizzes and questionnaires, referred to as "Kahoots," are designed to promote a game-like atmosphere in the learning environment.

Schoology is a learning management system to facilitate the creation of class rosters, curricula, and calendars. It also keeps track of interactions among students and student assessment results, among other things.

BetterExplained is a forum for sharing founder Kalid Azad's "Aha!" moments on technical subjects. Through videos, diagrams, and colloquial explanations, the site explains the logic behind mathematical equations and concepts, such as imaginary numbers or Bayes' theorem.

Google Knowledge Graph is an enhanced way of using the standard search bar. In essence, Google Knowledge Graph consists of those short, accurate answers you see when you ask a question in Google search. Rather than dig through websites to find the distance to the moon in miles (for instance), Google Knowledge Graph quickly answers your query and suggests resources for further investigation.

PanOpen provides a platform for easily accessing and evaluating high-quality open educational resources (OERs). An OER is a piece of content that has been freely and openly licensed for educational purposes — it can be a textbook, an assessment, a collection of course materials, or even an entire course.

The analysis reveals some of the suggestions that the teaching community can practice in the classrooms. Ultimately the teaching people are satisfied when he could reach the students community with his ideas and views. So, teaching depends upon successful mode of communication and Innovation though we mean the changes that we propose to be included in our medium of communication or even inclusion of some other elements in communicating information.

Clash of Generations- the 21st century is witnessing amazing demographic and other dimensions of diversity all over. The baby boomers are ripening & retiring in large numbers and the and Gen Have come in with enormous ambition, and self-confidence. What this also means is that the learning pattern of both these generations are diametrically opposite each other, while the former is easy with class room and group sessions , the latter prefers more self paced learning . Former had the ability for focusing outside of work without, distraction remember those were the times of "no mobile phones/blackberries & laptops".

The Gen X & Gen Y can only manage an attention span lesser than a couple few of hours on learning as their distractions and engagements are more frequent and different and hence demand small learning packages. Theory seems to have given way to experiential learning. Teaching has given way to facilitation and coaching. The researchers recommend that the teaching would be highly effective if the teacher start to use the recent multimedia technologies like usage of computers extensively or some modifications in the conventional mode of teaching.

Creating a change through Education

by Mrs Kalyani Konar, HM, SIES High School, Matunga.

Nelson Mandela rightly says, "Education is the most powerful weapon which you can use to change the world."

I believe that a family, a state, a nation and the world at large can see the desired change only through education . However, everything depends on what is the desired change. Thus, now the onus and responsibility to decide what kind of population we wish to create lies on the shoulders of educational leaders and families.

The world is in need of an ASSET population who have a positive attitude in life, who are ready to change themselves for the better. I believe that we, as educationists can create this ASSET population to experience a better world.

How can this be done?

All that is required is to become the positive change ourselves and implement our DREAMS of creating ASSET. Every student has to be considered as a human being having feelings, having common sense and most importantly an identity of his or her own. We need to believe that the younger generation is a smart generation but needs to be moulded in such a way that they become an asset to not only our nation but also to this planet.

'How do we mould them and what do we inculcate in them? 'is the next question.

We need to inculcate a disciplined and courteous behaviour in them not by preaching but by practicing. Get the 'CHALTA HAI 'attitude out of their system and infuse in to them the ' DO OR DIE ' attitude . A persevering, determined and dedicated personality needs to be created out of every student.

William Arthur Ward rightly says,
"The mediocre teacher tells
The good teacher explains
The superior teacher demonstrates
The great teacher inspires."

My request to all academicians is to rise to the occasion, inspire every student and strive to create the ASSET population which is the need of the hour.

A.Aspiring and Ambitious
S- Selfless and Sacrificing
S- Sincere
E- Enthusiastic
T- Tolerant

Thus, let us use Education to create this ASSET population which will surely make this world a better place to live in.

Improving Kindergarten years-No child's play

By Mrs Sumita Parameshwaran

The pre-primary education in India is also known as Kindergarten literally meaning children's garden. Various types of Pre-primary schools are now available in India and more and more children are now attending preschool, indicating a rise in the need for education of kids. Pre-primary education is considered to be very important for the child as it is the first step towards entering the world of knowledge as well as a healthy and purposeful life and hence ensuring good education is prime importance.

Yet, this sector though recognised is not given its due. Government acknowledges the unorganised sector of the mushrooming preschools in most urban areas without bringing them into the umbrella of the formal education. Whilst, **Pre-primary education helps children become more independent and confident as well as promote their all-round development.** Their overall increase raises questions such as whether this demand has increased everywhere.

Are all children attending pre-schools if they are available? Which types of preschools do children belonging to different socio-economic groups attend? Are these really catering to the needs of the children or are they helping in increasing the downward trend of education?

There are many factors which combine in this vast education sector, compiling a neat amount of plus points for the growth of Preschool education in India. To ensure the quality of preschool education it is important to provide well qualified and trained teachers for pre-primary schools. Teachers have to be trained at least for a year with practical training for minimum of three months. Creativity is most important; for children learn through their senses in these years.

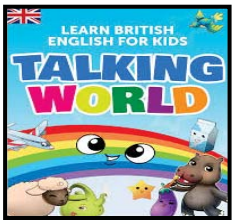
A facilitator has to be able to provide the much needed stimuli to the child in order to make him understand the world around. Facilities and Amenities are important and the ideal preschool must provide foremost a safe, healthy and suitable environment for young children. These should be well maintained and expanded. Preschools are diverse all around, with a variety of different institutions that have been developed for children ranging from the ages of two and a half to Five.

As per the RTE, the preschool tutelage has to be divided into two stages- junior kindergarten (Jr. KG) and senior kindergarten (Sr. KG). The Jr. KG class would comprise of children four to five years of age, and Sr. KG class would comprise of children aged five to six years. A child enters Class 1 of Primary School once he is done with the Sr. KG. Kindergarten plays an important part of regular schools as well as, it is part of separate private chains. This versatility is because education in India is provided by the public sector as well as the private sector, with control and funding coming from three levels: central, state, and local.

Children belonging to low income groups in society are depended on the unorganised sector of private nurseries, while those belonging to higher socio-economic groups are likely to attend private preschools. Education of children between 3-6 years old is not a fundamental right, though this is the best time maximum learning is done and children can be moulded in life.

Because of this preschool education is suffering from inadequate coverage and poor quality which benefits very few children. Even though the great philosophers and educationists like Mahatma Gandhi and Savitribai Phule had indeed stressed on informal learning of like skills and the need to educate children in the age group of 4-6 years prior to formal schooling. Formal Schools have Preschools attached to them so that they can mould the children into their way of learning at an early age and these benefit those parents who can afford to send their child to one.

The assurance of basic schooling for their child makes many parents go to extreme lengths to gain access to such schools. However, those left behind have to depend on private institutions which are many a times run by unqualified, inadequate facilitators. It has been estimated that only schools with great brand value provide for the wholesome development of young children. The readiness program is given due importance only there.



The other sector that cater to First generation learners, first generation English learners thrive on the fact that if a child can say his spellings right and is able to write (copy) whole sentences then he is fit to be in an English school. Every parent today would like their child to study in an English medium school, but how many actually are able to understand the whole concept of being in a preschool which will get their ward ready for formal learning?

Instead, a preschool becomes successful if the child is doing what a primary years program would enable him to do at the preschool level. Primary teachers are happy with a completely ready child, one who knows his writing, spellings, his GK and his Rhymes. In all of this the oral skills, understanding and thinking process of the child is lost.

The importance of pre-primary schooling has been recognized by educational policy and programmers in India and it has also been a constitutional commitment as a part of the directive principle of the constitution. All in all the pre-primary education scene in the country is on a boom, yet with mixed reactions as there are still many loopholes to be filled in various fields.

The government still needs to bring about the entire sector of Preschool education into a single umbrella wherein the rules governing the formal education sector could bring about a much needed orderliness and respite to parents who aspire for their child to get what is necessary at that stage. With hope resting on institutions that can bring about change in the thought process of learning and make it fun. After all, preschool is child's play, or so we think.

NCQM NEWS

Welcome Aboard - New Members

Corporate Member

Aruna Manharlal Shah Inst. of Management and Reasearch (CM0577)

Dr. R. M. Kumar — Mumbai

Institutional Member

Kings Multispeciality Hospital (IM0118)

Dr. L. Ekambaram — Chennai

Senior Member

Mr. Sunil Kumar Singh (SM0152) — Rudrapur

Mr. J. Jegan (SM0153) — Chennai

Individual Member category

Mr. Atul S. Oturkar (MI0557) — Thane

Mr. Rama Kumar (MI0558) — Mumbai

Mr. Abhay Vinod Thakur (MI0559) — Mumbai

Mr. Satyadev J. Banka (MI0560) — Mumbai

Student Member

Mr. J. B. Abilash (ST0018) — Chennai

NCQM Forthcoming Program

- Performance Management System - **Aug 13**
- ISO 9001:2015 Transition Auditors' Certificate Course - **Aug 19-20**
- ISO 14001:2015 Environment Management System (EMS) - **Aug 29**
- Root Cause Analysis & Use of QC Tools - **Sept 17**
- Value Engineering - An Effective Management Tool for Competitive Edge - **Sept 23**
- Being Cost Effective through 6S & 8W - **Oct 1**
- Supervisory Development Program - **Oct 15**
- How to Manage for Sustained Success of an Organisation? "A Quality Management Approach" **Oct 21-22**

Our Other Forthcoming Programs are :

- Safety Induction and Accident Reduction in Industries
- How to fight Low Price Competition?
- Benchmarking HR Initiative for HR Practice
- Six – Sigma Yellow Belt
- Six – Sigma Green Belt
- Supply Chain Management
- Total Productive Maintenance (TPM)
- Delegation to develop the Team
- Energy Management System Based on ISO 5001:2011
- Statistical Process Control

Admissions open for

July 2016 Batch

POST DIPLOMA IN TOTAL QUALITY MANAGEMENT

(Quality Council of India empanelled)

Focuses on

TQM and its applications in Manufacturing and Service Industries, TPM, Kaizen, 5S & 8W, Lean Six Sigma, ISO 9001 on QMS ISO 14001 on EMS, OHSAS 18001 on Health & Safety, IMS, HACCP, TS16949, ISO 26000, ISO 50001 on EnMS, RCA & RRCA, SPC, Six Sigma, Tools & Techniques for Organisational Excellence, National and International Business Excellence Models

One year distant learning program with contact sessions for guidance and solving students' difficulties

Exam Centres: Ajmer, Coimbatore, Mumbai, Noida, and Pune

Publications for Sale

Sr. No.	Name of Publications	Prize
1.	TQC at Enterprise Level	110/-
2.	Statistical Process Control with applications	700/-
3.	Quality – Best Practices – Selected Case Studies - QCI-DL Shah Quality Award	300/-
4	Quality Management Practices – by R. P. Mohanty	900/-
5.	Total Quality Manaagment and Purcbasing by S. M. Mody	30/-
6.	5S Booklet	25/-
7.	Implementing ISO 9001:2008 QMS Reference Guide (2nd Edition)	195/-

For details of above programs & publications please contact at the address given below:

Printed & Published by Chairman Publication Committee, on behalf of National Centre for Quality Management. G-503, Kailas Industrial Complex, Vikhroli - Hiranandani Link Road, Vikroli (W), Mumbai - 400 079. • Tel.: (022) 25170483 / 69, 40111962;
E-mail: drr@ncqm.com , ncqmmumbai@yahoo.co.in • Webside : www.ncqm.com