



# QUALITY

*Striving for Excellence*

**National Centre For Quality Management**

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## President's Page

### Indian Education Challenge



Dr. R.H.G.Rau

*While increasingly more children are now entering schools and colleges, the challenge before Indian authorities is how the education management can successfully address the need for quality education, and ensure its access even to those segments of population that are hard to reach.*

*The challenge can be squarely met only when the country knits together the policy makers and the deployment contributors of the policies. We need to critically deliberate, discuss and debate on the initiatives taken so far and their measurable outcomes towards quality education across the country. Further, we need to arrive at what works to improve quality in both the existing and upcoming schools and colleges in all identified areas. This surely calls for a scientific and systematic study through better understanding of the global initiatives that have shown positive results, and their adaptation to Indian conditions.*

*A few areas of our interest are: infrastructure, classroom processes, teacher accountability, teaching methods, learning processes and even the role of local bodies and private enterprises in school management. Among the deliverables are measurements in quality of education, teacher development indices, effects of decentralization, trends in quality levels in academics and administration, value-based management, teaching-learning outcomes and innovations in designing, developing and improving access to quality education.*

*It's imperative that leading institutions like NCQM, having high level commitment to enhance the education quality in India, come forward to conduct such studies of national importance.*

**Our next Issue is on : Quality in Packaging**

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# Educational Institution And Quality Management System

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## Why educational institution needs quality management system (QMS)?

The main purpose of quality management system in an educational institution is to provide confidence (i.e. aims to enhance satisfaction) to its customers (students and parents) that the knowledge, abilities and competencies delivered to its students by the educational institution consistently meet the requirements of its customers and also statutory and regulatory requirements. Certainly in a competitive market, every customer looks to get the best of the products. Number of educational institutions is growing. In this competitive world, educational institutions are also providing quality academic services. Presently educational institutions in India are also facing a challenging environment, similar to that of manufacturing sector. Competition for excellence is growing rapidly. International Organization for Standardization has issued a generic standard ISO 9001:2008 QMS. Many educational institutions are implementing this standard and obtaining certification.

During the National Quality Conclave of Quality Council of India (QCI), held on 9-10 February 2007 in New Delhi, the then President of India Dr. A. P. J. Abdul Kalam, gave the QCI a Seven-Point Action Plan, the first of which was developing benchmarks for schools. The then President referred to Quality of life encompassing Quality education with value system and productive employment. Accordingly, the QCI set before itself the task of developing a standard for accreditation supported with a rating system. The QCI, which provides the national accreditation structure to our country, entrusted the task to the Board that offers registration services for personnel and training courses. The Board's education committee, after

receiving inputs from various interested parties, like educationists, administrators, Quality experts, teachers, parents and others, drafted the Educational Quality Management Standards (EQMS) for Schools.

The standard was developed by the QCI with a view to define and implement systems to:

- Provide educational services that aim to enhance satisfaction level of all interested parties,
- Provide a basis for assessing and, where required, rating the effectiveness of an educational Quality management system, and
- Develop Quality consciousness among interested parties involved in school activities.

Now the QCI has issued 'Accreditation Standard for Quality School Governance' having requirements under following clauses –

Clause 4 – Educational quality management system

Clause 5 – Governance and management

Clause 6 – Resource management

Clause 7 – Educational service realization

Clause 8 – Measurement, analysis and improvement

## What are the quality issues for an educational institution?

The quality issues for an educational institution relates to the knowledge, abilities and competencies delivered to its students. The educational institution must ensure quality of education through a good education system. The objective of a good education system is the overall development of the student. To achieve the objective, following dimensions are important for a school:

- Vision: Vision acts as a driving force. Presence of vision helps in planning and making efforts by school authorities.
- Leadership: Leadership of the institution guides and leads the institution in right direction.
- Empowerment: Empowerment to staff can initiate and manage change. Here is an important question – How the school is providing freedom and autonomy to its staff (particularly teaching staff) to initiate and manage change?
- Faculty development: Various opportunities provided to teachers to develop themselves according to the latest curriculum.
- Planning culture: Whether the educational institution has a planning culture from admission of students to final examination? How the planning is given importance in delivering of the knowledge to the students?
- Communication: How effective are communication methods internal as well as external? What are the methods used? How the school communicates with the parents?
- Learning environment: Whether the school has a learning environment for students as well as for teachers?
- Infrastructure (support system): What is the infrastructure (support system) provided by the school for overall development of students? The support system includes academic facilities like classrooms, library, laboratory, computers and non academic facilities like hostel, games and sports facilities, playground, good toilets, drinking water facilities etc.
- Customer-focus: Is the school is customer focus? Whether the school is sensitive to the needs of the customers (students, parents and society at large)?
- Change attitude: Change attitude is must for continual improvement. Whether the top management and the staff of the school are ready to adopt new initiatives and measures to continually improve the effectiveness of the academic services provided by the school?

There are three basic elements for quality in education:

- Management quality,

- Teacher quality, and
- Student quality.



Quality of education is characterized by creation of the capacity for life long learning.

### How standards will help the educational institution or school?

There are so many internal and external benefits of implementing ISO 9001:2008 QMS, Educational Quality Management Standard for Schools (previous QCI Standard) or Accreditation Standard for Quality School Governance (present QCI standard). The educational institution or the school will certainly have such benefits including the following:

- Guiding tool: The documentation will act as a guiding tool for the management as well for the teaching staff.
- Improves understanding: The documentation improves understanding among the faculty and the staff.
- System based working: The standard promotes system based working instead of person based working.
- Streamlining operation: With the application of ISO 9001 QMS and/or QCI standards, operation processes in the educational institution or school are streamlined. The school may be able to identify problems, take corrective actions and preventive actions, thus moving towards achieving desired objectives through continual improvements.
- Internal audit providing way to solutions: As a requirement of the ISO 9001:2008 QMS Standard, internal audits are carried out at planned intervals. The QCI standard provides requirement for self assessment periodically. The internal audit and/or self assessment provides way to solutions; as the purpose of internal audit/self-assessment is to ascertain whether the QMS is effectively implemented and maintained in the educational institution / school.
- Clear role and responsibilities: Documentation provides clarity in roles, responsibilities and

authorities of personnel involved in quality related activities; as such it facilitates smooth working in the educational institution / school.

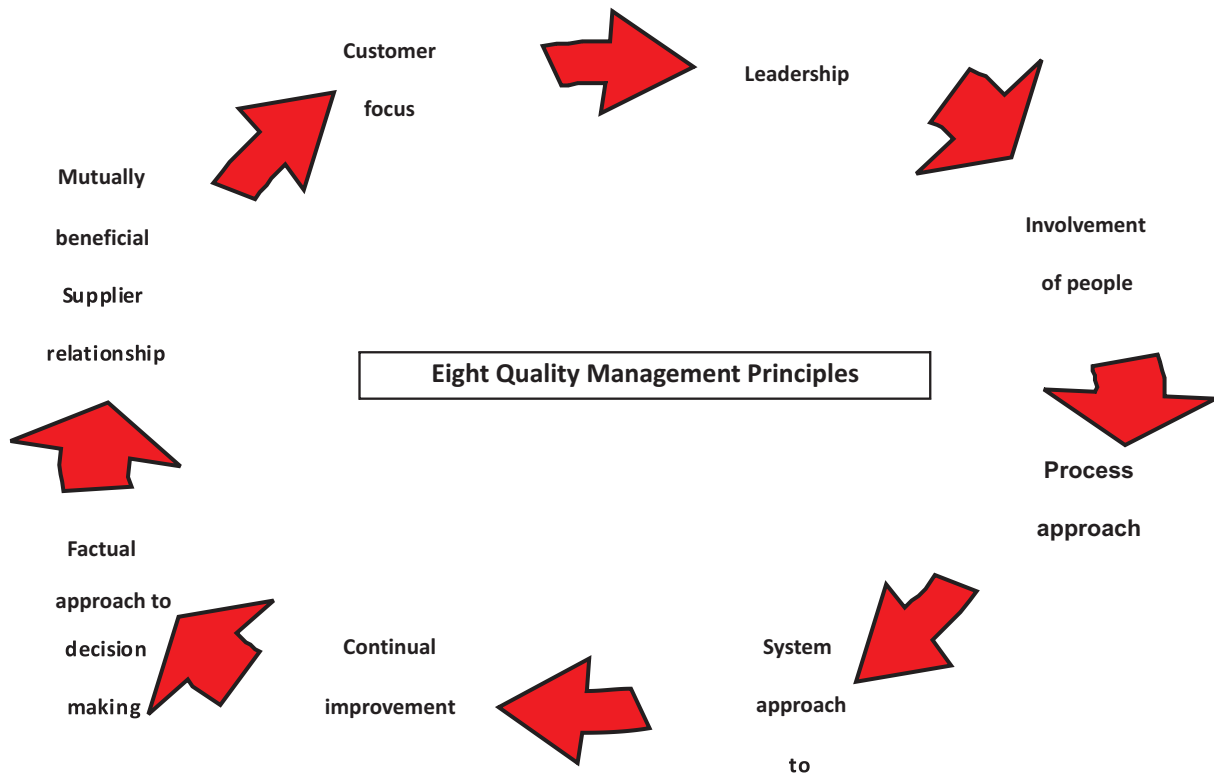
- Reduction of problems: QMS (as per ISO 9001:2008) and/or EQMS (as per QCI) implementation improves functioning of the educational institution / school and thus various problems related to product realization and its planning are reduced.
- Increase in customer satisfaction: QMS (as per ISO 9001:2008) and/or EQMS (as per QCI) implementation increases customer satisfaction. When customers are consistently satisfied, then the educational institution / school may be able to attract more and more students for admission in the next session.
- Committed top management: Top management is committed to provide adequate resources in the educational institution / school. Committed top management facilitates motivation to achieve better results.
- Identity of the educational institution / school: By implementing ISO 9001:2000 QMS and/or

QCI EQMS the educational institution / school makes a special identity as it conforms to standards requirements.

- Towards TQM: By implementing ISO 9001 QMS and/or QCI EQMS, the educational institution / school starts its journey to TQM (Total Quality Management).

### Eight Quality Management Principles

ISO 9000 family standards were first published in the year 1987, first revised in 1994, thereafter the major revision was carried out in the year 2000 and as a third revision ISO 9001:2008 QMS Standards have been published on 15 November 2008. The revision of ISO 9001:2000 and also ISO 9001:2008 has been developed on the basis of eight-quality management principles. What is Quality Management Principle? We can term quality management principle as a comprehensive and fundamental belief, for leading and operating an organization, aimed at continually improving the performance on a long term basis by focusing on customers while addressing the needs of all other stakeholders.



Now let us discuss eight quality management principles in respect to educational institutions / schools.

- 1st Principle – Customer focus – An educational institution / school depends on students (and also on parents) and therefore the educational institution / school should understand current and future needs of its students and parents, meet their requirements and strive to exceed students' and parents' expectations.
- 2nd Principle – Leadership – Leaders establish unity of purpose and direction of the school. Leadership in educational institution / school should create and maintain the internal environment in which teaching and non-teaching staff can become fully involved in achieving the objectives of the school. Top management of the educational institution / school needs to play leadership role through management commitment, customer focus, quality policy, planning, defining responsibility and authority, effective communication and management review.
- 3rd Principle – Involvement of people – There are various activities in an educational institution / a school (such as admission, teaching, assessment, examination etc.) and all these activities are performed in the educational institution / school. All staff members (teaching and non-teaching) are the essence of the school. Without involvement of the staff, nothing can be achieved. Full involvement of staff at all levels enables achievement of desired results. Top management should make efforts to maximize involvement of staff in the educational institution / school.
- 4th Principle – Process approach – A desired result can be achieved more efficiently if all related resources and activities are managed as a process. The educational institution / school must adopt process approach when developing, implementing and improving the effectiveness of the quality management system of the educational institution / school.
- 5th Principle – System approach to management – A system contains various interrelated processes. A system approach to management can be explained as identifying, understanding and managing a system of interrelated

processes for a given objectives. In a school these interrelated process may be admission process, formation of class, delivery of lessons (teaching), assessment etc. A system approach to management improves the educational institution's / school's effectiveness and efficiency, and therefore necessary.

### Process approach

ISO 9001:2008 QMS Standard promotes the adoption of process approach. It is the intention of the standard that the educational institution / school must adopt process approach while developing, implementing and improving the effectiveness of its QMS. The purpose is to enhance customer satisfaction by meeting customer and other requirements.

A process can be defined as an activity using resources, and managed in order to enable the transformation of inputs into outputs. For example: In admission process, a child (input) becomes a student (output) after admission. The output from one process can form input to the next process. The application of a system of processes within the organization may be termed as the 'process approach'.

The PDCA (Plan-Do-Check-Act) methodology can be applied to all processes in the educational institution / school:

- Plan – Establish the objectives of the educational institution / school and also establish processes to deliver results.
  - Do – Implementation of the processes.
  - Check – Monitor and measure various processes. Monitor and measure students' abilities, knowledge and competencies. Report the results.
  - Act – Take actions to continually improve the performance of the educational institution / school.
- 6th Principle – Continual improvement – Where the educational institution / school aims to enhance customer (student and parent) satisfaction, the school must have a permanent objective of continual improvement.



- 7th Principle – Factual approach to decision making – Effective decisions can be taken if there is analysis of data and information. In the educational institution / school, decision regarding change of teaching staff, revision of timetable etc. must be based on facts.
- 8th Principle – Mutually beneficial supplier relationship – An educational institution / a school and its suppliers are interdependent. A mutually beneficial relationship between the school and its suppliers enhances the ability to both to create value to each other.

### Benefits

Benefits derived from above quality management principles are as under:

- Increased business (from 1st principle)
  - Enhanced customer satisfaction (from 1st principle)
  - Repeat business, such as admission of second child from the same family (from 1st principle)
  - Employees' motivation towards school's goals and objectives (from 2nd and 3rd principles)
  - Better understanding of school's objectives (from 2nd principle)
  - Better communication within the school (from 2nd principle)
  - Staff involvement at all levels (from 3rd principle)
  - Innovation and creativity by staff (from 3rd principle)
  - Effective use of resources (from 4th principle)
  - Lower cost (from 4th principle)
  - Improved, consistent and desired results (from 4th and 5th principles)
  - Integration and alignment of process (from 5th principle)
  - Increase in effectiveness and efficiency of the educational institution / school – Timely completion of all work (from 5th principle)
  - Achievement of educational institution / school's objectives (from 5th principle)
  - Performance advantage and improvements in the educational institution / school (from 6th Principle)
  - Alignment of improvement activities (from 6th principle)
  - Increased ability of the educational institution / school to have decisions based on analysis (from 7th principle)
  - Increased ability to create value for the educational institution / school and its suppliers (from 8th principles)
  - Optimization of resources (from 8th principle)
- Mutually beneficial supplier relationship leads to long term benefits (from 8th principle).

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## Canteen Enhancement

### 2009 BEQET - Project 1st Position

Smt. P. N. Doshi Women's College's project on "Enhancement of Canteen Facilities" was adjudged the "Best Quality Enhancement Team – 2009" amongst several teams from different educational Institutes by The National Centre for Quality Management.

The project scientifically evaluated the canteen facilities by using pre-tested questionnaires on various stakeholders, visits to other college canteens and several brainstorming sessions. Opinions of canteen staff members were also considered. The project was carried out for 6 months from January to May 2009. The quality cost was to improve level of satisfaction among students and staff, health issues and enhance image of the college

Observations of other canteens revealed that they offered a greater variety at almost the same cost and larger portions. Standardization of recipes in terms of size and quantity served canteen needed improvement. After the data collection and statistical analysis of the questionnaires following problem areas identified were:

- Menu: There was a need to introduce variety in menu. Standardization was needed in taste and portion of food served.
- Hygiene: The need was felt to maintain cleanliness in the kitchen and around the canteen.
- Infrastructure: Proper seating arrangement and improvement in ambience of the canteen need to be enhanced.
- Service: Canteen staff should be trained professionally.

Fishbone diagram was made with identified possible causes. Each cause was discussed in detail and action plan was prepared. Some solutions in the action plan were as follows:

- Canteen should be operated on contract basis – professional management of the canteen is essential.
- Cyclic menu should be followed which will include mini meals and nutritious snacks

- Proper infrastructure should be provided for the staff and students at the ground floor
- To display the menu for next day in advance
- Increasing the staff by hiring skilled cooks.
- Coupon system to be introduced

The facilities were upgraded in all the critical areas leading to the improved quality of canteen. The canteen is now more appealing for students and staff. The over crowding of canteen is minimized. Proper seating arrangements are made. The cleanliness is enhanced. A proper and regular menu is provided at the canteen. The satisfaction level of the stakeholders increased from 30% to 80% after the project. Canteen looks cheerful and the customers get good, clean food at reasonable price. Students are happy to be in the canteen.

The project team members were Smt. Manisha Parelkar, Smt. Hemani Malhotra, Smt. Alka Pai, Smt. Seethalakshmi and Smt. Anitha Venugopal. Our trustees Shri. Chamanbhai Vora, Smt. Meena ben Khetani (SPRJ Kanyashala trust) and our Principal Dr. (Smt.) S. Kumudhavalli extended their kind cooperation, guidance and support in successful completion of this project.



## ADMISSIONS OPEN

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National Centre for Quality Management, Mumbai

(Brochure can also be downloaded  
from [www.ncqm.com](http://www.ncqm.com))



# Quality Improvement in Examination Results

2009 BEQET - Project 2nd Position

## Introduction:

The spectrum of quality improvement is a perspective of each and every organization today. There is a need of time to incorporate Continuous Quality Improvement (CQI) revolving around customer gain via tools like long term perspective, customer focus, system thinking, training and tools in quality with increased employee participation, measuring tools and reporting system and improved commitment among customer, employee and management.

Specific to engineering curriculum, there was a need for the educators to change from a method based exclusively on lectures to incorporate student centered and interactive methods. Therefore the project undertaken describes how a continuous quality improvement framework was used to introduce innovative instructional methods of nurturing the students with better results.

## Objectives:

The Objective set was "Quality Improvement in Examination Results", a combined and consistent effort made by each and every faculty. The data employed were (a) insights about student learning (b) variation in students' performance in internal and university examination based on their attendance and (c) the psychology of students to improve upon their learning process.

The three major areas of concern were:

- 1) Less number of First Class rangers (approx 40% -50%).
- 2) Live ATKTs affecting the results.
- 3) Reduction in placements on account of not sustaining the eligibility criteria set by corporates.

Therefore the regular meetings and brain storming sessions were carried out to find the solutions for the above problems. The concrete steps taken for CQI were:

## Academic improvement:

- Structured course files for every subject

comprising of syllabus, notes, question bank etc.

- Minimum two assignments in each subject with two term test in a semester.
- Personal attention under Teacher-Guardian scheme.
- Orientation lectures are delivered by Principal and Class-Incharge to ensure a smooth transition of F.E. students to Institute.

## Measurement and monitoring for CQI:

- A correlation of attendance of students with the performance in examinations both internal and university were carried out clearly stating out the better performance for more attendees.
- Remedial assignments were proposed for attendance-defaulter students to incur academic loss.
- Teacher-Guardian scheme with 1:20 teacher-student ratio was identified for reducing Live ATKTs and other lacunas to improve the results.
- Make up test was introduced for the failures in the two term tests.
- Students' feedback about faculty was monitored twice in a semester to enhance in teaching-learning process.

## Other improvements:

- Student Development Programmes (SDP) were conducted to benefit in the areas of Soft Skills, Technical Skills, Group Discussion and Personal Interviews.
- Faculty Development Programmes (FDP) were arranged on regular basis to update in their respective subjects and teaching methodologies.
- Well equipped Library facilities were provided with e-resources and also a book bank facility for the benefit of poor students.
- Faculty attrition rate was reduced by providing conducive environment for their personal and professional growth.

## Achieved Benefits:

- The Lacunas in teaching process are well



identified with the provision of qualified and experienced faculty.

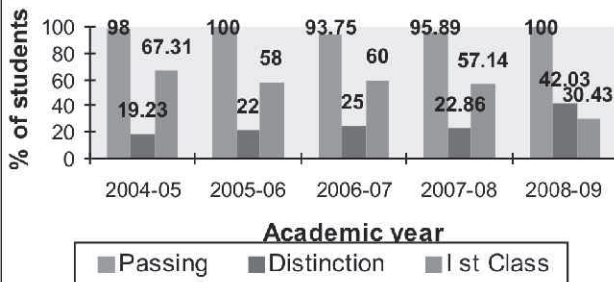
- Students' performance is enhanced achieving positions at Mumbai University

e.g.

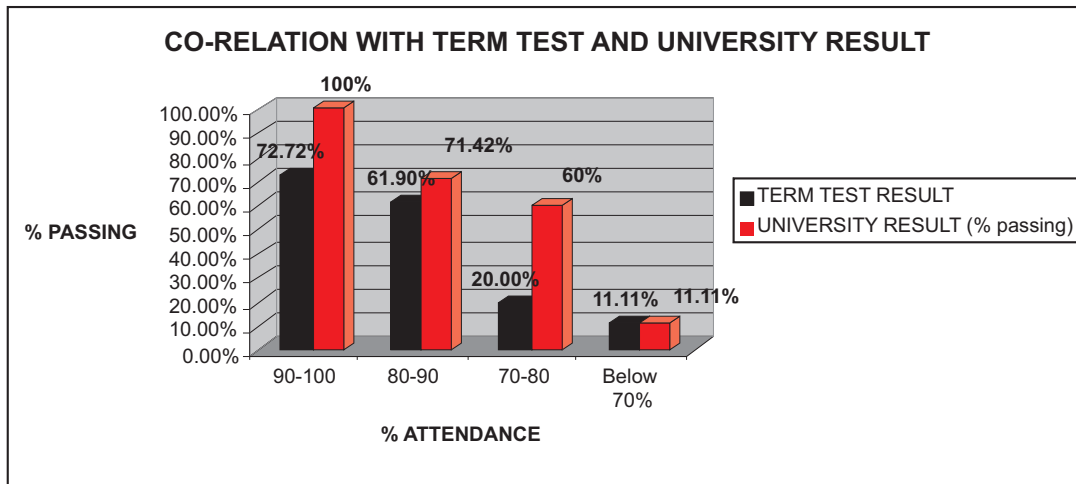
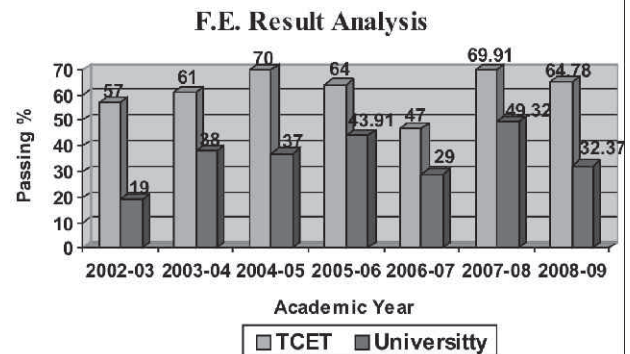
- In May 2008, Nagesh Nayak, BE (Electronics and Telecommunication) was a topper of Mumbai University securing 80.90%

- In May 2009, Surabhi Khandelwal, BE (Information Technology) was a topper in Mumbai University scoring 83%
- The percentage of First Class students in each branch improved with increasing percentage of placement
- Post-implementation benefit will still reflect in the forthcoming results.

**Computer Engineering Result Analysis**



**Computer Engineering Result Analysis**



**Conclusion:**

From the last two years, the processes are well established and implemented not only in the teaching-learning areas but other areas as well such as training & placements and administration to meet the regulatory body requirements. Documentation and record keeping are mandatorily monitored for the effectiveness through ISO 9001:2008 audits for continual improvement of the new age students in this self financed Institution.

**Thakur College Team**

Ms. Anuradha Singh (Team Leader-Lecturer), Dr. Rajni Bahuguna (Sr. Lecturer), Mr. Amol Dapkekar (Lecturer), Mr. Krishnakant Mishra (Lecturer), Mr. Shivaji Londhe (Lecturer) and Mr. Uday Waskar (Lab. Assistant), Thakur College of Engineering and Technology, Kandivali (E), Mumbai - 400 101.



## Quality Circles: A Tool To Bond Better

2009 BEQET - Project 3rd Position

At Shri M D Shah Mahila College of Arts & Commerce, Malad (West), Mumbai, we are committed to take up quality enhancement strategies for continuous improvement. We believe that whatever we are doing can be done in a better way and we continue to better it. Changes in our working are the key, howsoever, small they may be. We believe that most quality problems are built into the system and the system can be improved only when it is previewed from a prevention mindset rather than an inspection mindset. This does not limit itself to any select group of individuals, ranks, categories and/or positions. Philip Crosby rightly stated that “all that is necessary for Quality Management is People”.

An institution has to approach Quality with the aim to integrate TQM methods and the systems of work in the organization. Since the Japanese approach to management defines Quality Circles as a participatory philosophy woven around quality control and problem solving, individuals working at all levels play important roles in the organization. This privilege of participation enables change, growth and progress. Another concomitant to this process is the enhanced level of satisfaction among the stakeholders. And as Dr. K. Ishikawa writes, “One of the greatest principles behind QC is consumer satisfaction. Within a company, the next process is the customer. If this way of thinking is driven home, the walls of sectionalism will crumble and fresh air will breeze through the company.”

The shift from a traditional educational setup to a quality approach backed process was gradual at our college. From general exposure and guidance in Quality methods to specialized Quality training enabled the advent of a quality atmosphere. The knowledge acquired by the teaching staff percolated to the administrative and support staff and also the students. Quality projects by quality groups among teachers, students, administrative and support staff were realized. Inroads in this relationship led to various combinations with teachers and administrative and support staff

and/or with students. The circles lived upto the description of involving people, providing opportunities for participation and recognizing the contribution of its members.

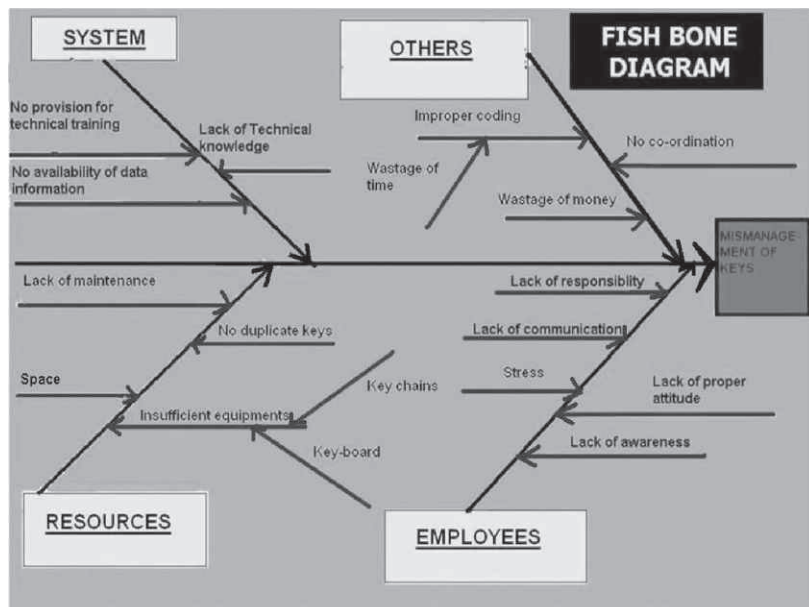
The association with NCQM and the guidance under our Principal, Dr. Deepa Sharma (doctorate in Quality Circles in Educational Institutes) helped in the conception, development and execution of quality concept through TQM. The three year linkage with NCQM provided a platform to showcase the efforts of the Quality Circles. The recognition received in the form of prizes at National and International forums on Quality further motivated us to continue the process. The recently concluded BEQET Awards Competition at NCQM saw the combined efforts of a teacher'-students' Quality Circle presentation on General Key Management Systems. This presentation was well received by the Quality stalwarts and won the third prize among 10 other presentations.

The said Quality Circle encountered certain problems during their QC meetings. After a brain storming session, they arrived at a consensus that mismanagement of keys was a recurrent problem. They analysed the problem and realized that it was ignorance of the right keys and/or missing keys to particular rooms and cupboards which led to loss of precious time, energy and heightened level of anxiety among the users.

After many brainstorming sessions they identified the main causes and sub-causes for the problem of mismanagement of keys.

The QC members worked on the PDCA method to eliminate the root causes of mismanagement of keys and ensured that the work proceeds smoothly. The steps taken were –

- Survey of the existing procedures
- New key coding system to the classrooms and cupboards
- Labeling of all resources
- Feedback from users and maintenance staff
- Action on feedback



The organized pattern of working resulted in –

- Keys being maintained at one central location.
- Keys of different departments identified by different color key-chains (Coding & labeling system)
- Communication gap bridged amongst the key users & maintainers
- Systematic arrangement of keys
- Reduction of the work stress and chaos among the key users
- Time saved

Problem – solving technique with a positive outlook led to cordial working relationship between users and maintenance staff and developed a spirit of achievement through scientific handling of the problem.

In the present day world when sustained development has become a watchword, the systems approach to quality has gained utmost importance and relevance even in the area of education. Globalization and increased domestic competition have brought a sense of urgency in introducing highly successful TQM techniques to Indian education system.

As Mohan and Goswami, say, quality is not an accident. It is always a result of high intention,

sincere efforts, intelligent direction and skillful execution. It can be classified as an attitude or a characteristic. The concept of total quality management can be adopted to evolve all new Total Quality Management System (TQMS) which needs to encompass the following components:

- Quality Planning
- Quality Implementation
- Quality Monitoring and Control

The application of this method at our institute has reaped beneficial rewards for us and is garnering momentum among the rest. All these efforts and commitment of the members will instill and ensure the quality of our institute in the coming years.

Eventually it can be said that future of education in India is very bright and looking beneath its surface can find that the strengths are many and potential limitless. The onus therefore, now lies upon the institutions to harness and develop it to the best of capacities.

**Ms. Geeta Patil & Ms. Shubha Acharya**

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# Power of ISO 9001:2008 Quality Management Standard

Y. M. Gokhale - Fellow Member & NCQM Pune Centre Co-ordinator

This has almost become part and parcel of our Life. I Was given charge of implementing this System way back in 1989 when it was ISO9001-1987 Std. That was just a trial run for everybody. One thing got emerged as there was traditionally Audit culture existing in Accounts i.e. related to Finance System not in any other departments. When the internal audit started, that itself created very interesting situations. And the Third party certification audits have created a total, different atmosphere. Traditionally Q.C.Dept was only accountable for Quality, other Depts. had lot of important work to do, that type of feeling was accepted throughout Industries. The first breakthrough was achieved by ISO, Quality is everybody's responsibility.

Now after 23yrs the System has matured so much as not only in Manufacturing but in Service Sectors. Such as Hospitals, Institutions, Construction and Software related Companies. All employees seem to like this unified approach towards Quality. The present Standard has brought about very wider concept of Quality that it should fulfill all requirements not only as desired by Customer but applicable regulatory and statutory requirements pertaining to Product or Service including in-house and outsource processes which were undertaken in building Quality. Lot of exploration is required in understanding this Powerful System so that Effective Implementation will give the desired Results.

The impact of this will not be felt in the Organisations where two parallel Systems are run one for ISO and the other the regular one. Even then I assure you that the power of this System is so strong that it percolates slowly where the implementation is weak just for Certification. The places where more importance is given for adopting this, as way of life the Companies and the staff have been greatly rewarded in consistence growth and improvements also have been able to deal with Market Fluctuations may be due to Recession or Slack.

It is accepted fact that this System has really changed the mind set of people who practice it. This certainly builds Character.

So enjoy the Power of ISO9001 and be Number One.



## SUCCESS STANDARD SCORE STORY

### Key

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
14	15	16	17	18	19	20	21	22	23	24	25	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

STANDARD	DETAILS										SCORE
<b>Education</b>	E	D	U	C	A	T	I	O	N	=	92%
	5	4	21	3	1	20	9	15	14		
<b>Knowledge</b>	K	N	O	W	L	E	D	G	E	=	96%
	11	14	15	23	12	5	4	7	5		
<b>Hardwork</b>	H	A	R	D	W	O	R	K	=	98%	
	8	1	18	4	23	15	18	11			
<b>Attitude</b>	A	T	T	I	T	U	D	E	=	100%	
	1	20	20	9	20	21	4	5			

**Conclusion :- SUCCESS LIES IN ATTITUDE TO ACHIEVE ALTITUDE**

Suresh D Mali, Pune -  
IRCA Registered - Lead Auditor



## **Occupational Safety and Health Policy** **A tool for improving working conditions of an organization**

Y. Mohan Babu, Dr. U. B. Raju, Dr. A. V. Sita Rama Raju

### **Synopsis of the Paper**

*continued from last issue .....*

#### **2.1 ILO imitative for OHS improvement**

At its 91st Session (2003), the International Labour Conference adopted a Global Strategy on OSH, which was designed progressively to improve safety and health in the world of work. In response to this strategy, the International Labour Conference adopted the Promotional Framework for Occupational Safety and Health Convention (No. 187) and its accompanying Recommendation (No. 197) in 2006. National OSH Policy reference is made in Conversations 155, 161, 187, 170, 174, 176, and 184.

The main purpose of Conversation No. 187 is to ensure that a higher priority is given to OSH in national agendas and to foster political commitments in a tripartite context for the improvement of working conditions and environment. It has a promotional rather than prescriptive content and is based on two fundamental concepts outlined in the above Global Strategy, namely to develop a preventative safety and health culture and to apply a systems approach to managing OSH nationally. This means the continual monitoring, evaluation and improvement of all the different "building blocks" making up the national OSH system. The Conventional defines in general terms the elements and function of the national policy, the national system and the national programme.

#### **2.2 National Policy on Safety, Health and Environment at workplace**

Government of India has announced its policy towards Safety, Health and Environment at workplace to address the issue of securing health and safety of the workers in the country as envisaged in the Constitution on 5th February, 2009. It provides general guidelines for all the stakeholders for developing a safety culture and environment at workplaces. Government of India firmly believes that without safe, clean environment as well as healthy working conditions, social justice and economic growth cannot be achieved and safe and

healthy working environment is recognised as fundamental human right.

The following objectives have been set in the policy :

- continuous reduction in the incidence of work related injuries, fatalities, diseases, disasters and loss of national assets
- maintaining comprehensive database of the above for better performance and monitoring
- continuous enhancement of community awareness on SHE issues at work related areas
- Continuously increasing community expectation of workplace health and safety standards
- improving SHE at workplace by creation of green jobs contributing to sustainable development

The action plan for achieving these objectives include development of standards and codes of practices, encouraging compliance by stakeholders, increasing awareness, promoting and providing for research and development, knowledge and skill development, practical guidance and providing financial and non financial incentives. It has also been set that the policy is reviewed every five years.

#### **3.0 OHS Policy**

OHS policy<sup>3</sup> is defined as "overall intentions and direction of an organisation related to its OHS performance as formally expressed by the top management".

IS 18001:2000 defines OHS policy as "Statements by the organisations of its intentions and principles in relation to its overall OH & S performance which provides a framework for its action and for setting its OH & S objectives and goals. Management commitment 4 is an essential ingredient needed by an organisation to build a safe

and healthy workplace for everyone employees, contractors, customers and visitors. If occupational safety and healthy management is taken seriously, management will:

- have an occupational safety and health policy that increases awareness and understanding of the organisation's high level of commitment to safety management;
- lead by being personally involved in safety management activities;
- understand relevant occupational safety and organisations to comply with them;
- identify the organisation's occupational safety and health objectives;
- allocate adequate resources to achieve the objectives;
- assign competent people to safety management activities; and
- make accountable those people who are intended to participate in the application of policies, procedures and systems.

A critical element of a safety culture is that there should be a clear manifestation of that culture and the long-term objectives regarding safety from the top management, supported throughout the enterprise (including the Board of Directors). This should be laid down in a Safety Policy. The Policy should provide standards and strategics designed to protect the health and safety of workers and the public, as well as the environment. The Policy should form support for the various strategics (e.g., policies, procedures and practices) related to safety. The Policy should not be affected by short-term changes in the economic situation of the enterprise. The Policy is also an importance instrument to convey the corporate/enterprise view on safety to external stakeholders<sup>5</sup>.

Sec 41 B of Factories Act 1948 made it mandatory for the managements of the following factories to announce a Health and Safety Policy.

1. All factories employing more than 100 workers.
2. All factories having a manufacturing process declared as hazardous or dangerous irrespective of number of employees.

The following are the main elements of OHS policy under Factories Act 1948:

1. intension and commitment of top management

- to Safety, health and environment and compliance with legal requirements
2. arrangements to make the policy effective
3. involvement of workers
4. considering health and safety performance of employees while evaluating their performance
5. responsibility of contractor, sub contractors, transporters and other agencies
6. resume of Safety, Health and Environment performance in the annual report
7. techniques and methods adopted for improving OHS
8. considering OHS as an issue in decision making of the following activities: Purchase of plant and equipment, machinery, material, recruitment and placement
9. information, education and training
10. giving publicity of the OHS Policy
  - a) making copies available to all the workers
  - b) displaying the same at conspicuous places
  - c) translating in to regional language
11. Revision of the policy due to change in process, substances etc

### 3.1 Why a Policy is required

Health and Safety Policy indicates the employer's intention towards Occupational Health and Safety of his employees, commitment and support of employees towards achieving safe and healthy working conditions. A policy commits the entire organisation to maintaining a safe workplace. This encourages both human and financial resources to help ensure that safety is an important part of doing business<sup>6</sup>.

There has been a considerable resurgence in interest in corporate OHS policy and practices, particularly for institutional investors. For example, OHS policy forms an important part in evaluation of corporate sustainability policy Corporate Social Responsibility and firm environment, social and governance (ESG) practice and performance<sup>7</sup>.

The development of a health and safety policy was observed to be a key health and safety behaviour. The existence of a company health and safety policy was seen as a catalyst for further health and safety action.

### 3.2 Importance of Elements of OHS Policy

Importance of various elements of OHS policy by improving working conditions are discussed below.

#### 3.2.1 Appropriate to size and nature of Industry

OHS issue are more severe in chemical units compared to other industries particularly engineering industries. The policy on OHS shall address the hazards inherent in the process and the tools required to be used to mitigate the hazards shall be specified. Usage of Hazard Analysis and Risk Assessment, Safety Audit etc will improve OHS performance. Proper use of tools will identify the hazards and suggests the remedial measures.

#### 3.2.2 Statutory Obligations

Manufacturing industries are in general governed by the following legislation in respect of OHS:

1. Factories Act 1948
2. Environment Protection Act 1986 and Rules made there under viz. Manufacturing, Storage and Import of Hazardous Material Rules 1989, Chemical Accident Prevention and Emergency Planning Rules 1996 etc.
3. Indian Boiler Regulations
4. Indian Electricity Act

5. The Explosive Act
6. Gas Cylinder Rules, etc.

These Acts regulates working conditions in manufacturing establishments. These have specified various measures to be taken for reducing hazards and improving OHS standards. A commitment of management towards compliance of the legal provisions places moral obligation also on the management in addition to the legal obligation for improving OHS.

#### 3.2.3 Employee Involvement in announcing policy

Participation of all the stakeholders is the key to success of any management system. Participation of employees in policy formulation enhances their affinity and commitments to policy. They feel attached to the organisation's decisions and in all activities towards improvement in OHS. Factories Act 1948 requires managements to constitute a safety committee with equal representation of management and workers. There is a statutory requirement on the part of the management to consult employees while formulating an OHS policy.

**TABLE 1 Comparative Statement of various elements in Statutory Requirements and Management Standards**

Element	Factories Act 1948	OHSAS 18001	IS 18001	HS(G)65	OECD guidelines	ILO guidelines	Australia work safe Plan
Commitment towards legal requirements	Yes	Yes	Yes	Yes	No	Yes	Yes
Resources allotted	Yes	Yes	Yes	Yes	No	No	Yes
Employee involvement	Yes	No	Yes	Yes	Yes	No	No
Performance of employees	Yes	No	No	No	No	No	Yes
Appropriate to nature and size of organisations	No	Yes	No	No	No	Yes	No
Responsibility of contractors, subcontractors, transporters	Specified	Not Specified	Specified	Not Specified	No	Not Specified	Yes
Education and training	Yes	No	Yes	Yes	No	No	Yes
Communicating to all	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Performance reporting in annual report	Yes	No	No	No	No	No	No
Decision making	Yes	No	No	No	No	No	No
OHS objectives	No	Yes	Yes	Yes	Yes	Yes	Yes
Communication	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Translating to regl language	Yes	No	No	No	No	No	No
Periodical review	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Continual improvement	No	Yes	Yes	Yes	No	Yes	No

*to be continued in next issue .....*

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## NCQM News

### Welcome Aboard - New Members

#### Member Individual:

MI0485	Mr. Vivek Singhvi.....	Chennai
MI0486	Mr. Domnic Felix Sequeira.....	Mumbai
MI0487	Mr. Vivek Srivastava.....	Mumbai
MI0488	Mr. Anil Sambhaji Satam.....	Mumbai
MI0489	Mr. Namrita Jayant Anchan....	Vasai
MI0490	Mr. Vipul Gupta.....	Agra

#### Senior Member:

SM0089	Ms. Lakshmi Raghavendra Murthy .....	Thane
SM0096	Mr. Ashok Samtaney.....	Mumbai
SM0097	Ms. Smita P. Manjrekar.....	Thane
SM0098	Ms. Nishi Kaul.....	Navi Mumbai

#### Converted to Senior category from Individual category:

SM0090	Mr. Gururaj Kulkarni .....	Mumbai
SM0091	Mr. Dhananjay J. Joshi.....	Thane
SM0092	Mr. Pratap J. Rane.....	Thane
SM0093	Mr. M. B. S. Agarwal.....	Ajmer
SM0094	Mr. Mahadeo D. Mhaske.....	Pune
SM0095	Mr. B. Banerjee.....	Mumbai

#### Corporate Member:

CM0529	Furnace Fabrica (India) Ltd., Mr. V. M. Bhosale	Mumbai
CM0530	Dhananjay Industrial Engineer Pvt. Ltd., Mumbai - Mr. Ashok Mehta	
CM0531	Global Sigma Consulting Group, Delhi Mr. Shivendra	
CM0532	Larsen & Toubro Limited – EBG ESP Dvn., Ahmednagar - Mr. K. K. Shukla	
CM0533	Online Netsys (I) Pvt. Ltd Mumbai Ms. Manisha Gada	
CM0534	Itek Business Solutions Pvt. Ltd., Mumbai - Ms. Shantha Tucker	

#### Converted to Senior Life from Individual Life

SI0010	Dr. R. H. G. Rau.....	Mumbai
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#### BEQET AWARD FUNCTION

Meeting of Principals and faculty members of educational institutions and BEQET Award function was held on 19th June 2010 at Smt. P.N.Doshi Women's College, Ghatkopar.

Dr. R.H.G.Rau, NCQM President welcomed members and initiated discussions for Quality improvement in Education.

#### Members voiced following points:

- We have large number of colleges apart from IITs – National level institutions established by Parliament – which are temples of learning and we are proud of their achievements.
- A shift is required from providing information (read) to knowledge (study) to emphasis on learning (passion to learn). We need to develop academic excellence and expertise to add value to all stakeholders (students, faculty, management and society at large). We can thus move to higher level of performance.
- At institutions, all need to develop empathy i.e. attitude to care for others, all must enjoy their work assignments and carry these out with interest.
- We are facing severe competition from other national and international institutions. Our syllabus must be updated and reviewed periodically. Faculty must have passion to teach. We must develop set of objectives and improvement targets.
- Internal performance can be assessed against these External performance measures can be based achieved results at examinations and demand for admission.
- We must lay emphasis on Quality and not on number of pass outs.
- All Institutions must recognize social values and encourage its members / students to take up activities to benefit society.
- Faculty development is major activity to ensure/assure Quality ....
- DAV School slogan – “One who dares to teach : must not stop to learn”.
- Deemed University status and colleges with autonomy have freedom to develop curricula and adopt different methodology to impart education.
- Affiliated colleges work with prescribed syllabus, aided colleges have constraints to work under approved budget.
- NAAC accredited colleges have to incorporate



Quality Assurance Cell and take up improvement projects.

- One has to operate locally and aim to be world class global institution. IMC's RBNQA has education as one of the award sector since 1997, DAV Public School received RBNQA in education sector Challenge to educational institutions to make students think.
- Thanks to internet today students are well informed.
- Faculty must discuss social issues in addition to required text book study and expose students to think. Inculcate spirit of inquiry.
- ISO 9001 certification may help Institutions to control and monitor processes aimed at results if taken in right spirit.
- Revised ISO 9001: 2008 QMS is not procedure oriented.

**Faculty members also expressed their opinion on students' attitudes :**

Students are : examination oriented

Not interested to learn extra

- They need career orientation. They have concern to get good job. Their outlook is modern.
- We need to impart practical knowledge (application) and make them realize their potential. Make them self disciplined. Help them to achieve their potential.
- To train faculty when syllabus is revised, Government organises training programmes. Resource persons need to have expertise and must be well accepted. Colleges can arrange in house training for all with their own resource person.
- Over a period of years, institutions can create their Brand Image.

Dr. R.H.G. Rau conducted brainstorming session and invited suggestion for Quality initiatives to be taken in institutions these are as under.

1. Develop Social Values
2. Internal use what process learnt
3. Love people
4. Globalisation – Localisation  
Create Human – Value
5. RBNQA – for educational institutions
6. Motivate – students
7. Students – concerned with salary
8. Make them think
9. Teach Values at end of each class
10. Two way teaching – interactive
11. Quality in Education Documentation
12. ISO 9001 – good It is debatable
13. Create a spirit of inquiry
14. Help to acquire new skills
15. Self discipline
16. No donations – admission
17. Student – Topics Syllabus – encourage out of box thinking
18. Bring practical knowledge
19. Create – team potential
20. Keep informed
21. Aditya Birla group – employee comes 10 min. earlier - Informs what is main activity of the day
22. Faculty as a team – Sr – Jr leaning
23. Reactive to change
24. Add value to yourself
25. Ensure values are adopted by all
26. Orientation programmes internalize
27. Students prefer hassle free admission to NAAC accredited colleges.

**Afternoon Session :**

Shri Dinesh Jani gave presentation on 5S and Kaizen.

BEQET award winning team and 2nd and 3rd position teams gave presentation on following projects

Status	Project Title	Institution	Team Members
I	Canteen Upgradation	Smt. P. N. Doshi Women's College, Cama Lane, Ghatkopar (W) Mumbai - 400 086.  Dr. S. Kumudhavalli Principal	Mrs. Alka Pai Ms. Seetalakshmi Ms. Anita Venugopal Mrs. Manisha Parelkar Mrs. Hemani Malhotra



Status	Project Title	Institution	Team Members
II	Quality Improvement in Exam Results in TCET	Thakur College of Engineering & Technology (TCET) Kandivli (E), Mumbai 400101. Dr. B. K. Mishra Principal	Mrs. Anuradha Singh Mrs. Rajni Bahuguna Mr. Amol Dapkekar Mr. Shivaji Londhe Mr. Krishnakant Mishra Mr. Uday Waskar
III	General Key Management System	Shri M. D. Shah Mahila College of Arts & Commerce B. J. Patil Road, Malad (W), Mumbai. Dr. Deepa Sharma Principal	Ms. Vidyaxmi Ratnakar Ms. Sinthasha Pakkir Ms. Namrita Anchan Ms. Harsha Kamble Ms. Krupa Jani Ms. Asha Sharma Ms. Richa Sheth Ms. Prajakta Kalyankar

BEQET award and certificates to team members were presented there after. Dr. P. Poddar proposed vote of thanks to NCQM board members Dr. R.H.G.Rau, Mr. B. Banerjee, Prof. H. C. Patel and Smt. P.N.Doshi Women's College - Principal, Dr. S. Kumudhavalli

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**NCQM BEQET AWARD COMPETITION - LIST OF PARTICIPANTS**  
 Year - 2006

Sr.	College / School	Team	Project Title	Competition Date	Status
1.	S P N Doshi Women's College Ghatkopar (W), Mumbai – 400 086.	1.	<b>Student Motivation</b>	Jan. 11, 2007	II
		2.	Improvement Examination System		
2.	B. M. Nanavati College of Home Science Matunga, Mumbai - 400 019.	3.	Enhancing Communication Skills		III
		4.	<b>Social Outreach Programme</b>		
		5.	Faculty Upgradation through R & D		
3.	Shri M. D. Shah Mahila College, B. J. Patil Road Malad (W), Mumbai 400064.	6.	<b>Improvement on Cleanliness</b>		I
		7.	To develop System for storage & retrieval of information		

Year - 2007

1.	<b>Thakur Institute of Management Studies &amp; Research (TIMSR)</b> Kandivli (E), Mumbai – 400101	1.	Improvement in Students Placement	Jan. 15, 2008	
2.	<b>Thakur Institute of Management Studies Career Development and Research (TIMSCDR)</b> Kandivli (E), Mumbai – 400101	2	<b>Student Academic Performance</b>		II
3.	Smt. P. N. Doshi Women's College of Arts Ghatkopar (W) , Mumbai – 400086.	3.	Campus Cleanliness		I
		4.	<b>To improve classroom condition from 40% to 100%</b>		
4.	<b>Dr. B. M. N. College of Home Science</b> Matunga, Mumbai - 400 019.	5.	Mentoring : A Process Towards Healthy Living		
5.	Shri M. D. Shah Mahila College, B. J. Patil Road Malad (W), Mumbai 400064.	6.	Low Usage of Technology in Teaching Learning Process		III
		7.	<b>SPARK (The Radiant Energy of Life)</b>		



**Year - 2008**

Sr.	College / School	Team	Project Title	Competition Date	Status
1.	<b>Thakur College of Engineering &amp; Technology (TCET)</b> Kandivli (E), Mumbai – 400101	1.	Library Process	Feb. 10, 2009	
2.	<b>Smt. P. N. Doshi Women's College of Arts</b> Cama Lane, Ghatkopar (W) Mumbai – 400086.	2.	<b>Enhancing the Library Environment</b>		I
		3.	<b>Enhancement of Result of Commerce Faculty</b>		III
3.	<b>Shri M. D. Shah Mahila College,</b> Malad (W), Mumbai 400064.	4.	<b>Problem Solving</b>		II
		5.	Students Database Management System		

**Year - 2009**

1.	<b>St. Francis Institute of Management &amp; Research</b> Borivali (W), Mumbai – 400103.	1.	Reengineering of 'Capping Project' during Winter Semester	Feb. 20, 2010	
		2.	Summer Excellence		
		3.	E-mpetus		
2.	<b>Thakur College of Engineering &amp; Technology (TCET)</b> Kandivli (E), Mumbai – 400101	4.	<b>Quality Improvement in Exam Results in TCET</b>		II
		5.	Quality Improvement in Work Environment		
		6.	Communication		
3.	<b>Thakur Institute of Management Studies, Career Development and Research (TIMSCDR)</b> Kandivli (E), Mumbai - 400 101.	7.	Faculty Retention Programme		
4.	<b>Smt. P. N. Doshi Women's College of Arts</b> Ghatkopar (W) Mumbai – 400086.	8.	<b>Canteen Upgradation</b>		I
5.	<b>Shri M. D. Shah Mahila College,</b> B. J. Patil Road Malad (W), Mumbai 400064.	9.	<b>General Key Management Systems</b>		III
		10.	Quest for Quality		



Free Lecture was conducted at Hotel Atithi titled on 'The Leap into Next League' by Mr. Rajan Nadpurohit on March 20, 2010.

**WICMA**

Prof. H. C. Patel gave lecture on “Quality Systems” during Certificate Course in Corrugated Packaging – Automatic Process on 17th May 2010.

**QCI Sponsored Programme**

NCQM has conducted Quality Council of India (QCI) sponsored one day “Quality Awareness Training” Programme at MCCIA Hall, Ahmednagar on May 21, 2010. 37 participants attended the programme.

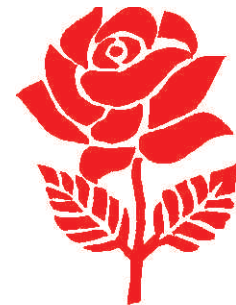
## Quality in Education Seminar



*Participation by Teachers*



*Mr. Dinesh Jani - 5S Presentation*



*Canteen Upgradation*



*Quality Improvement in Exam Results*



*General Key Management System*