2012 Calendar

ASQ: The Global Voice of Quality



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people passionate about quality

raising the voice of quality

ASQ is...

People passionate about quality...

The global knowledge network...

Ideas, tools, and experts...

Transforming our world.

a global community

ASQ is...you!

You are a vital part of a global community of people passionate about quality and helping to build its future. It is this passion that you, our valued members, show each day in your organziation and daily life that keeps ASQ strong.

For this, we thank you!

As a token of our appreciation, we wanted to give you a glimpse of all the exciting opportunities in the upcoming year to further your quality knowledge, network with other quality experts around the world, and allow you to create

your personal ASQ experience. You will find special conferences, certification and training dates, some interesting facts you may not know about the most influential people in quality, and the tools created to help you do your job better.

Once again, thank you for your commitment to ASQ. We look forward to a great 2012 with you as we all continue to raise the voice of quality.

(Calendar date entries are subject to change.)

The information in this calendar was compiled from various articles from *Quality Progress*, ASQ's flagship publication. For more information, please visit **www.qualityprogress.com**.





Philip B. Crosby (1926 - 2001)Philip B. Crosby became widely renowned in business circles as a management. He stressed the importance of "doing it right the first time," laid out the roadmap to quality improvement in his 14-step approach, and established the four absolutes of quality. Crosby is perhaps best known for promoting a standard of excellence based on nothing-the concept of zero defects.

Philip B. Crosby

guru of quality management

14-step approach

"It isn't what you find; **it's what** you double of the second state of the second stat

ero defects

Philip B. Crosby: Noteworthy Accomplishments

- Founded Philip Crosby Associates (PCA) and embarked on the consulting stage of his career.
- *Quality Is Free* laid out his 14 steps to improvement.
- Elected the 30th president of ASQ.
- Integrated zero defects into the four absolutes of quality and summarized management's role in creating a quality-focused organization in his book *Quality Without Tears.*





4 STEPS TO MPROVEMENT

Management Commitment: Discuss the need for quality improvement with management, emphasizing the need for defect prevention.

Quality Improvement Team: Bring together representatives of each department, including department heads, to form the quality improvement team and explain their roles.

Quality Measurement: Determine and record the status of quality throughout the company; quality measurements for each area of activity must be established where they don't exist and reviewed where they do.

Cost of Quality Evaluation: Get accurate figures from the comptroller's office with detailed information on what constitutes cost of quality.

Quality Awareness: Share with employees the measurements of what non-quality is costing by training supervisors to orient employees and by providing visible evidence of the concern for quality improvement.

Corrective Action: Any problems discovered by inspection, as well as less obvious problems that require attention, must be brought to the supervision meetings at each level.

Establish an Ad Hoc Committee for the Zero Defects Program: Select three or four members of the team to investigate the zero defects concept and ways to implement the program.

- Supervisor Training: Conduct a formal orientation with all levels of management prior to implementation of all the steps.
- Zero Defects Day: Supervisors should explain 9 the establishment of zero defects as the performance standard of the entire company in one day so everyone understands it the same way.
- **10** Goal Setting: During meetings with employees, each supervisor requests they establish specific and measurable goals they would like to strive for, usually 30-, 60- and 90-day goals.
- Error Cause Removal: Ask individuals to 11 describe any problem that keeps them from performing error-free work.
- Recognition: Recognize those who meet their 12 goals or perform outstanding acts with rewards.
- Quality Councils: Bring the quality professionals 13 and team chairpersons together regularly to communicate and determine actions necessary to upgrade and improve the solid quality program being installed.
- Do It Over Again: The typical program 14 takes a year to 18 months, so turnover will have wiped out most of the education effort, making it necessary to set up a new team of representatives and begin again.

14 Steps to Improvement

movement, it is a good idea to move right into the basics of quality. Help them understand what quality means, emphasizing the absolutes of

- Quality means conformance,
- There is no such thing as a quality problem.
- There is no such thing as the economics of quality; it is always cheaper to do the job right the





W. Edwards Deming

the red bead experiment

the funnel experiment

'Quality is everyone's responsibility.''

the Deming cycle

March 2012 thurs fri wed sun mon tues sat W. Edwards Deming: 2 1 3 ASQ Global supports members worldwide **Noteworthy** Accomplishments and has offices in the United States, China, India, and Mexico. • NBC aired the documentary If Japan Can, Why Can't We? Go to asq.org/global. Certification and shined a spotlight on the gap Exam Date between Japan's product quality and that of the United States. 8 9 4 5 10 6 7 • Introduced his 14 points for management in his book, Quality, Productivity and Competitive Position, which he later revised to create his landmark work, Out of the Crisis. Classroom-based Training Course Cluster • Las Vegas, NV • The New Economics was his final book.

1900-93) There is no greater example of W. Edwards Deming's belief in and devotion o quality than his contributions during and after World War II. He helped build he manufacturing prowess that led he United States o victory. After the war, he gave the Japanese the tools hey needed to help rebuild their society.

- Deming's other contributions:

 The red bead experiment, which showed that the only way to improve a product or service is for management to improve the system.
- -The funnel experiment, which illustrated the importance of understanding variation (he credited it to Lloyd S. Nelson).
- -The Deming cycle (plan-dostudy-act), which is a variation of the Shewhart cycle (plan-do-check-act).





PLAN-DO-CHECK-ACT CYCLE

developed by W. Edwards Deming



Description

out change. Just as a circle has no end, the PDCA cycle should be repeated again and



April 2012 wed thurs fri sun tues sat mon **Use the Plan-Do-**1 2 3 4 5 6 7 **Check-Act Cycle:** • As a model for continuous World Conference on • When starting a new Quality and Improvement Certification Application improvement project. Deadline • When developing a new or 9 12 8 10 11 14 13 improved design of a process, product, or service. • When defining a repetitive • When planning data collection and analysis to verify and Certification Application prioritize problems or root causes. Deadline • When implementing any change.





improvement.

work process.

without thinking of Armand V. Feigenbaum, the man who coined the term total quality as Total Quality Management (TQM) —a foundation of modern management that has been widely accepted as a viable operating philosophy in all economic sectors. Feigenbaum was one of the first engineers to speak management's language. He was also one of the world's first true quality professionals.



Armand V. Feigenbaum

total quality management

14-step approach

"An important feature of a good quality program is that it controls quality at the source

true quality professional



TOTAL QUALITY MANAGEMENT

Total Quality Management.

Create constancy of purpose for improving products and services.

Adopt the new philosophy.

Cease dependence on inspection to achieve quality.

End the practice of awarding business on price alone; instead, minimize total cost by working with a single supplier.

Improve constantly and forever every process for planning, production, and service.

Institute training on the job.

Adopt and institute leadership.

Drive out fear.

- Break down barriers between 9 staff areas.
- **10** Eliminate slogans, exhortations, and targets for the workforce.
- Eliminate numerical quotas for the 11 workforce and numerical goals for management.
- **12** Remove barriers that rob people of pride of workmanship and eliminate the annual rating or merit system.
- 13 Institute a vigorous program of education and self-improvement for everyone.
- **14** Put everybody in the company to work accomplishing the transformation.





At its core, Total Quality Management (TQM) is a management approach to long-term success through customer satisfaction. In a

The methods for implementing this approach come from the teachings of such quality leaders as:

Kaoru Ishikawa (1915 - 89)Kaoru Ishikawa is probably best known for the quality tool named for him: the Ishikawa diagram, also known as the fishbone or causeand-effect diagram. As one of the seven basic quality tools, the diagram identifies many possible causes for an effect or problem and can be used to structure a brainstorming session, but his key role in helping create a quality strategy specific to Japan may be his most important quality contribution.



Ishikawa diagram

647 articles, 31 books

Japanese quality circle movement

"Failure is the seed of success."

Kaoru Ishikawa: Noteworthy Accomplishments

- Wrote 647 articles and 31 books, including two that were translated into English: Introduction to Quality Control and What is Total Quality Control? The Japanese Way.
- Joined the Quality Circles Research Group at the Union of Japanese Scientists and Engineers (JUSE) and developed and delivered the group's first basic quality control course.
- Served as chairman of the quality



- control committee for the National Conference in Japan and played a central role in expanding the scope of the conference.
- Started the Japanese quality circle movement in 1962.

The Global Voice of Quality

 ASQ established the Ishikawa Medal recognizing those individuals or teams whose work has had a positive impact on the human side of quality.

FISHBONE DIAGRAM

developed by Kaoru Ishikawa



Layers of branches show thorough thinking about the causes of the problem.

identifying possible causes for a problem



Joseph M. Juran

Pareto principle

eader in quality management

"Ouality is fitness for use."

80-20 rule



(1904-2008) Joseph M. Juran was a 20th-century quality management consultant who changed the way companies do business and how they think about quality. For Juran, quality was about management, human beings, and human interaction. Essentially, all problems had one root cause: resistance to change or cultural resistance.

Joseph M. Juran: Noteworthy Accomplishments

- Was granted a temporary leave of absence from his job during World War II to work for the Lend-Lease Administration, which procured and leased arms, equipment, and supplies to World War II allies.
- Wrote *Quality Control Handbook*, which cemented his reputation as the authority on quality.
- Became a respected consultant,

lecturer, author, and leader in quality management.

 Juran applied the Pareto principle (or 80-20 rule) to quality, stating that 80 percent of problems come from 20 percent of causes, and that management should concentrate on the 20 percent.





PARETO CHART

developed by Joseph M. Juran



Description

A Pareto chart is a bar graph. The lengths of the bars represent frequency or cost (time or money) and are arranged with longest bars on the left and the shortest to the right. In this way, the chart visually depicts which situations are more significant.



Pareto analysis









the control chart

Walter A. **Shewhart** (1891 - 1967)Walter A. Shewhart was known as the father of statistical quality control and successfully combined the disciplines of statistics, engineering, and economics, and put statistical theory to work to address industry needs. Some have argued that his work led a quality revolution in the first part of the 20th century and launched the quality profession.

statistical theory

"Applied science, particularly in the mass production of interchangeable parts, is even more exacting than pure science in certain matters of

accuracy and precision."

ASQ's first honorary member



eventually became the basis for the plan-do-check-act cycle, a four-step process for quality improvement.

 Shewhart is best known for developing the control chart, a simple but highly effective tool that represented an initial step toward what Shewhart called "the formulation of a scientific basis for securing economic control."

The Global Voice of Quality

CONTROL CHART

The lines are based on historical data. By comparing current data to these lines, you can draw conclusions about whether the process variation is consistent (in control) or is unpredictable (out of control or affected by special causes of variation).



range is how tightly they are clustered.



When to Use a Control Chart

- When controlling ongoing processes by finding and correcting problems as they occur.
- When predicting the expected range of outcomes from a process.
- When determining whether a process is stable (in statistical control).
- When analyzing patterns of process variation from special causes (non-routine events)

Description

The control chart is a graph used to study how a process changes over time. Data are plotted in time order. A control chart always has a central line for the average, an upper line for the upper control limit, and a lower line for the lower control limit. Control charts for variable data are used in pairs. The top chart monitors the average or the centering of the distribution of data from the process. The bottom chart monitors the range or the width of the distribution. If your data were shots in target practice, the average is where the shots are clustering, and the





