

Societās Quālitātis

Vol. 9 No 4. Sept / Oct 1995

Union of Japanese Scientists and Engineers

5-10-11 Sendagaya, Shibuya-ku, Tokyo 151 JAPAN

1995 RECIPIENTS OF THE DEMING PRIZE

The Deming Prize Committee announced 1995 Recipients of the Deming Prize as follows after the Deming Prize Committee Meeting on October 17, 1995. The Deming Prize Awarding Ceremony was held on November 14, from 17:30 p.m. at the Keidanren-kaikan, Tokyo.

THE JAPAN QUALITY MEDAL

Maeda Corporation Co., Ltd.

(Description of the company field; General Construction)

<Reasons for receiving the prize>

In 1983 Maeda Corporation Co., Ltd., introduced TQC and in 1989 and won the Deming Application Prize in 1989. Since then, the firm has attained admirable results through its ongoing TQC program, the objective being to maintain its position as the "Company of Quality and Technology Excellence." In addition, the corporate management has been enforcing concrete specific medium-range and annual policies during the period, based on "Vision M 2001," which has materialized by applying such measures as executive group discussions. After receiving the Deming Application Prize, Maeda management adopted excellent strategy to enhance the quality of not only construction materials but also its administration (information-intensive management, technological development, groupwide activities and the fostering of human resources). Consequently, the firm has made superb achievements, such as strengthening corporate constitution, providing much greater customer satisfaction, and affecting brilliant management planning.

THE DEMING PRIZE FOR INDIVIDUALS

Ayatomo Kanno
professor of
Teikyo Heisei University



<Reasons for receiving the prize>

The establishment, education and diffusion of "Japanese-style Software Quality Engineering" in software development technology and production management.

Professor Ayatomo Kanno developed and expanded quality management via an interdisciplinary approach at the Iwate University and the Science University of Tokyo, making the most of his abundant experience in the fields of reliance-oriented technology and software development management at Nippon Telegraph and Telephone Corporation and Hitachi, Ltd. Prof. Kanno also contributed to uniting software development technology with TQC, the diffusion of quality control in production management of software products, and research on and the diffusion of reliance-oriented technology. Moreover his impressive academic work and prolific writing have gone far to illuminate and diffuse his fields of study.

THE DEMING APPLICATION PRIZE

Ishikawajima-Harima Heavy Industries Co. Nuclear Power Division

(Description of the company field: Development, design, production and installment of atomic power plants, facilities related to unclear power cycling, and equipment concerned with new energy.)

<Reasons for receiving the prize>

In 1990 the division reinforced its TQC activities with policy management as the core, aiming to establish a corporate constitution able to quickly cope with changes in managerial environment. It diffused policies to departmental, sectional and individual levels and expanded small group activities in an effort to improve overall quality. The division succeeded in preventing the occurrence of irregularities, and vastly improved work efficiency by promoting computerization and mechanization, thus realizing higher quality at comparatively low cost.

Mtex Matsumura Corporation

(Description of the company field: Development, production and sales of semiconductor manufacturing equipment. The production of semiconductor devices and of automotive parts.)

<Reason for receiving the prize>

In April 1991 the company introduced TQC, the goal being to improve the awareness of employees and upgrade corporate constitution. Under the strong leadership of the president, the firm obtained remarkable results over a short period with the united efforts of the entire workforce. Specially, with respect to semiconductor devices, the forms principal product, it TQC was actively promoted, advantage of the concurrent development and manufacture of LSI products and semiconductor equipment. As a result, its Quality, Cost and Delivery greatly improved, which led to acquiring new customers and a sharp increase in the number of orders received. The company achieved its first medium-term management plan one year earlier than scheduled, and has launched activities toward attaining its second medium-range management plan, called "V2000."

Kikuchi Metal Stamping Co., Ltd.

(Description of the company field: Production of automotive parts and metal molds for metallurgical tools.)

<Reasons for receiving the prize>

The company is an automotive parts manufacture aiming to become the world's foremost auto parts maker. As such, it introduced TQC in 1991 to more closely assure attaining its objective, aspiring toward building a corporate constitution capable of dealing with any type of technical revolution or market change and to maintain a degree stability that will last for a very long time.

Accordingly, the firm's TQC activities promoted under the themes of "Quality First", "Respect for People" and "Stressing Skill" brought about excellent results in areas of quality index improvement, such as its ratio of inferior goods delivered products, the development of pioneering technology.

Toyoseiki Co., Ltd.

(Description of the company field: Production and sales of automatic transmissions for cars, drive control parts, and engine parts.)

<Reason for receiving the prize>

Caught in a severe managerial environment after the collapse of the bubble economy, the company in 1992 declared the extensive introduction of TQC. It undertook to promote activities aiming to become a thoroughly reliable manufacturer and accordingly expanded its production processes. In the course of its new program, the company changed its viewpoint from sales-intensive to "profit-intensive," and achieved steady results in corporate performance, such as complete quality guarantee from its upstream, the building of a targeted cost price structure for new products, improvement of production cost, and progress in daily management, all of which stemmed from the corporate concept of "Five Barriers."

THE QUALITY CONTROL AWARD FOR FACTORIES

Nissan Motor Co., Ltd. Murayama Plant

(Description of the factory field;The manufacture of automobiles - Skyline, Laurel, Precea, March and of parts supplied to other factories.)

<Reasons for receiving the prize>

In 1962 the factory launched operations under the Prince Motor Co., Ltd. After the firm's merger with Nissan Motor Co., Ltd., the factory engaged in automobile manufacture as the Murayama Plant of Nissan Motors, contributing greatly to corporate development. In 1990 the factory introduced TQC to realize a severe management objective with quality build-up at the upstream, executing measures to stem the source of irregularities as its primary mission. It went all out to effect improvements in policy management and to develop new cars, and was successful in such matters as reducing market claims and improving the ratio of computers going supplied directory to the production line and the ratio of keeping delivery dates. As a result, the factory was vitalized to the fullest.

* * * * *

< JUSE SEMINAR 1996 > INTERNATIONAL SEMINAR ON TQM FOR TOP MANAGEMNET

Data: July 15~25, 1996
[July 15~19 (Seminar), 22~25 (Plant Visits), 1996]
Venue: JUSE Higashi-Koenji Annex (Seminar)
Participation Fee: ¥800,000
(including 12 nights accommodation for single room, sightseeing,
breakfast, and lunch except for free time)

————— Require more details or brochure to —————

International Cooperation Group
Union of Japanese Scientists and Engineers (JUSE)
5-10-11 Sendagaya, Shibuya-ku, Tokyo 151, Japan
Tel: +81-3-5379-1227 Fax: +81-3-3225-1813
E-mail: HHF 03411 @ niftyserve. or.jp

1995 DEMING PRIZE RECIPIENTS



1995 Recipients of
The Japan Quality Medal,
The Deming Prize for Individuals,
The Deming Application Prize,
The Quality Control Award for Factories,
The Nikkei QC Literature Award.



Deming Prize Awarding Celebration



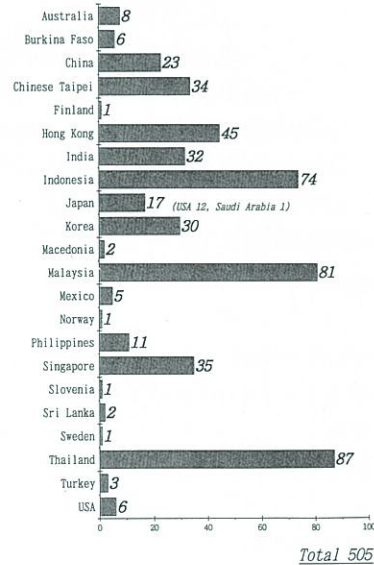
INTERNATIONAL CONVENTION ON QC CIRCLES 1995-YOKOHAMA



The International Convention on QC Circles 1995 (ICQCC '95-Yokohama) took place under the theme of "QC Circles toward the 21st Century" from October 17 to 20, 1995. This year's ICQCC celebrated its 20th meeting in Yokohama from its first convention in 1976, taken place in Seoul, Korea. The convention resulted in successfully gathered more than 500 participants from abroad (Fig. I) and about 550 participants inside Japan.

Overall program of the convention is as below (Fig. II). In the opening plenary session on October 18, 1995, JUSE Chairman Sadao Takahashi addressed opening greetings and Mayor of Yokohama city Hidenobu Takahide gave welcome address to all the participants. The

Fig. I ICQCC'95-Yokohama



keynote address was made by Professor Tatsuo Ikezawa, Waseda University, chairman of the programing committee of the convention, on "Promoting Attractive QC Circle Activities toward the 21st Century", and Chairman of Hewlett-Packard Japan Ltd. Kenzo Sasaoka followed it by his special lecture on "The QC Circle Evolution from TQC to TQM, A Management Perspective." At the end of the plenary session, QC Circle Forum was discussed by five panelists of distinguished QC experts in various countries, who are Professor Noriaki Kano, Science University of Tokyo (Panel Leader, Japan), President C. Philip Alexander, Ann Arbor Consulting, (U.S.A.), Affiliated Professor Paul Lillrank, Stockholm School of Economics (Sweden), Chairman Surasak Nananukool, Bangkok Finance Co., Ltd. (Thailand), and Corporate Quality Assurance Manager Tadashi Sugiura, Yokokawa Electric Corporation (Japan).

Fig. II GENERAL PROGRAM

Tue. 17	08:00 ~ 20:00	Registration (Pacifico 1F: Lobby)
	09:00 ~ 16:30	Pre-Convention Seminar (1) Paper Airplane Game (3F:313 & 314) (2) Postman Game (3F:311 & 312)
	17:15 ~ 17:50	Speakers Meeting (3F:301)
Wed. 18	18:00 ~ 20:00	Welcome Cocktail (5F:501 & 502)
	08:00 ~ 14:00	Registration (Pacifico 1F: Lobby)
	14:00 ~ 18:30	Registration (Pacifico 2F: Lobby)
Thu. 19	08:55 ~ 12:30	Opening Plenary Session (1F:Main Hall)
	Time / Place	301(3F) 302(3F) 501(5F) 502(5F)
	13:50 ~ 15:20	A1-1~A1-3 B1-1~B1-3 C1-1~C1-3 D1-1~D1-3
Fri. 20	15:40 ~ 17:40	A2-1~A2-4 B2-1~B2-4 C2-1~C2-4 D2-1~D2-4
	08:30 ~ 10:30	A3-1~A3-4 B3-1~B3-4 C3-1~C3-4 D3-1~D3-4
	10:50 ~ 12:20	A4-1~A4-3 B4-1~B4-3 C4-1~C4-3 D4-1~D4-3
Fri. 20	13:30 ~ 15:00	A5-1~A5-3 C7-1~C7-3 C5-1~C5-3 D5-1~D5-3
	15:20 ~ 16:50	A6-1~A6-3 C8-1~C8-3 C6-1~C6-3 D6-1~D6-3
	17:10 ~ 17:30	Closing Plenary Session (1F:Main Hall)
Fri. 20	18:00 ~ 20:30	Farewell Dinner (Intercontinental Hotel, 3F:Ball Room)
	08:00 ~	Industrial Visits in Yokohama and Tokyo Area (Participants from abroad:8 groups)

*A1-1, A1-2, Indicate presentation numbers of papers

SESSION TITLES

STREAM A & B Reports of QC Circles Promotion in Countries & Companies

- A-1 Promotion in Countries B-1 Promotion in Countries
- A-2 Promotion in Countries B-2 Promotion in Countries
- A-3 Promotion in Companies B-3 Vitalization for QC Circles
- A-4 Promotion in Companies B-4 Human Building for QC Circles
- A-5 Methodology for QC Circles
- A-6 Methodology for QC Circles

STREAM C & D Case Reports of Problem Solving by QC Circles

- C-1 Electric Companies D-1 Service Industries
- C-2 Machinery Companies D-2 Service Industries
- C-3 Service Industries D-3 Electric Companies
- C-4 Service Industries D-4 Service Industries
- C-5 Manufacturing Companies D-5 Manufacturing Companies
- C-6 Manufacturing Companies D-6 Clerical Service Companies
- C-7 Steel Companies
- C-8 Electric Companies



THE QC CIRCLE EVOLUTION FROM TQC TO TQM, A MANAGEMENT PERSPECTIVE



(Special Lecture in ICQCC'95-Yokoham)

Kenzo Sasaoka
Chairman of the Board
Hewlett-Packard Japan Ltd.

1. INTRODUCTION OF QC CIRCLE

It was in 1970 when I first heard about QC circles 25 years ago. I had just been moved to production manager from R&D in a Japanese company. Compared with R&D engineers, production workers had no opportunity to show their initiative. They had to just follow instructions given by supervisors or engineers, and their morale had been low. So I couldn't believe the fact that shop floor workers organized a voluntary team to improve the quality of their work, utilizing quality control techniques. My doubts completely disappeared when I attended a local QC circle conference, and listened to the circle reports. I was deeply impressed, and have been an absolute supporter of QC circles since then.

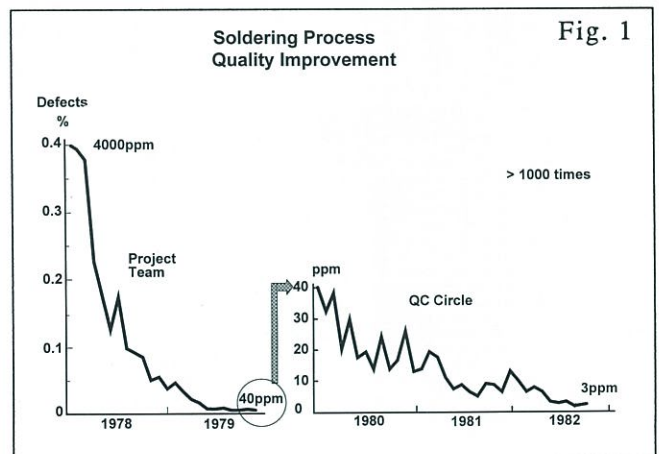


Later, I was transferred to a joint venture with an American company. One day, our production manager asked me how he could raise his young workers' morale. I suggested to try QC circles, but I had no confidence that people in the U.S.-Japan joint venture could accept and practice such a unique Japanese way of QC circle, because here, American ways had always been taught

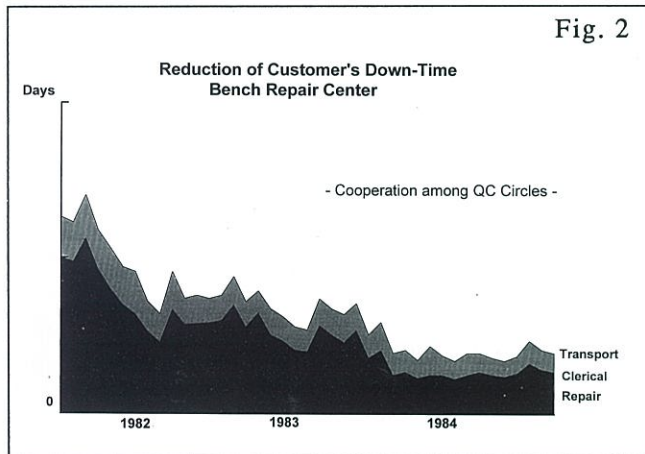
by superior. To my surprise, immediately after their participation in a local QC circle conference, our pioneering circle started. Until our challenge to the Deming Prize, QC circles had been organized throughout hundred percent of our workers in the company. Our employees were young and flexible to change.

The manager's active support is essential to motivate QC circles. One of our production managers who raised the best QC circle in the company described his beliefs on QC circles as follows: Poor workmanship is not worker's responsibility. Preparation, training, and equipment, all are management problems. Never discriminate between workers. Work together, study, think, improve with workers. Make QC circle a part of regular job. QC circle is a tool to help managers' own improvement and key to raise good QC circle leaders. I think this is a good way for managers to take their ownership of QC circles.

Here are two outstanding achievements of QC circles in our company. One is improvement of the automatic soldering process, first by a project team, and later by QC circles. They achieved more than a thousand-fold improvement. This dramatic improvement became a showcase story to open the door to TQC in our company. (Refer to Fig. 1)



The other is an example of cooperation between QC circles from different jobs in our venture repair center. By their concerted efforts of repair technicians, order processing, and truck drivers, over two years, repair turn around time to customers was reduced to one fourth the original. (Refer to Fig. 2)



2. AFTER WINING THE DEMING PRIZE

After the Deming Prize challenge ended, a new issue started on how to keep up the momentum of QC circle activities in our company. Our managers, facilitators, and circle leaders have dedicated their efforts to face this change of situation. Allotment of time, approach of support, and the methods of recognition have been reviewed and attempted under the consistent support of top management.

By these efforts, we have been keeping high level of activity for more than 15 years, both at the factories and offices. Today, in our factories, QC circles are identical with frontline job groups in the organization.

After our success in winning the Deming Prize in 1982, TQC was adopted by our parent company, Hewlett Packard worldwide, through a strong leadership of the president, John Young. QC circles were also introduced in many places in the world.

When I visited the HP Malaysia factory in 1984, all functional managers organized a QC circle by themselves to really understand what the QC circle is all about, before introducing it to workers. By their experiences, elements of successful QC circles summarized as universal participation by the whole department; management objective is to be in line with QCC objectives; right climate of management behavior involvement, and belief; training, project relevant to job, and time is allotted to QC circle to discuss and solve problems.

We have HP Asia Pacific QC circle convention every year. Nine circles were selected from each country

in 1992. Malaysia factory, Chinese field sales, Korea field, Singapore factory, Taiwan field, Japan factory, Australia field, China factory, and Thailand field. Japan was not a gold medal winner at the convention, but the Singapore factory and the Taiwan field teams were the winners. I think it's an encouraging result.

3. THREE REVOLUTION IN POSTWAR

If we look back in history, after World War II, times were hard for Japanese people, in life and in industry. Labor unions were militant, and many violent strikes occurred nationwide. It was quite different from the peaceful and prosperous situation today. And I think the QC circle symbolizes the revolutionary change of the labor-management relationship in Japan, from confrontation to participation.

In my perception, Japan has attempted and realized three industrial revolutions in postwar history, which have contributed significantly to Japanese industrial progress and competitiveness. The first one is TQC, total quality control, or companywide quality control, which means higher quality results in lower cost. On the contrary, by tradition, higher quality means higher cost. The second is QC circle, which shows that thinking workers are more productive, especially when they are united as a team, compared with the traditional way of mass production started early in this century, where thinking and labor were separated. Third, by tradition, larger lot size resulted in lower costs, but by revolution, smaller lot size with shorter lead time can reduce overall costs, as consumer demands a variety of products, and time is more important than volume today. This was originated by Toyota Motor, and known as just-in-time production system.

4. TWO NEW WAVES ON QC FOR FUTURE

Now, let's turn to looking into the future. Today, we are facing another turning point in global economy. Saturation of growth, changing cost and quality competition, and downsizing of employment are occurring in the Japanese economy, and influencing our quality activities too. I want to point out here two important new waves, which will influence the quality activities in the future.

First one is the transition from TQC to TQM. TQC has widely spread in the world, and has made significant contributions to the better quality of products and services in many countries. Today, TQC is not just Japan's unique asset, but has become a global one. And today, people in the world are widely using the term TQM, total quality management, as a more logical expression

of what we have been doing historically by the name of TQC. The quality committees in Japan also have recently agreed to change the name from TQC to TQM, and to make this change a new start of reinvention of quality activities in Japan for the next century.

Among many discussions going on, Dr. Shimizu, main coordinator of the 60th QC Symposium in Japan, summarized what TQM should focus on as a vision in the 21st century. It should focus on human life, happiness of people in both work and in life, and the natural environment, as well as industrial progress. There are also discussions that Japanese TQC should become more international, or it should have noblesse oblige to be still variable and respected in the next century.

From a practical business management viewpoint, I personally anticipate three things. First, TQM should be linked more effectively with business performance, in this new era of consumer demands. In this context, the ultimate meaning of quality in the changing market environment should be superior value to customer. How we can create and deliver it is a critical and strategic subject of management today. And second, in TQM the customer needs, both visible and invisible, should be taken more strategically and systematically as a source of idea to create the superior value to them. This customer-vendor chain should be work like a positive feedback. Responding to customers' problems was an important element of quality assurance, also in the traditional TQC, but it was a passive response, and worked like a negative feedback. And third, today, business process reengineering is emerging as a dynamic new tool of industrial innovation, utilizing advanced information technology. In TQM, we should built effective collaboration between cross-functional business process reengineering and continuous process improvement by the traditional TQC.

Another important new wave is that recently different kinds of teamwork of workers are emerging in the world, such as self-managing teams, empowered teams, business teams, sales, workshops, and so on. They have much broader capacity and higher responsibility, as an integrated management unit provided by a full set of business performance information. This trend is supported by a management belief that the success of modern enterprise depends more and more on giving responsibility and autonomy to the lowest possible level, where it can be exercised effectively. From the employees' side, as the educational level gets higher, they become more eager to achieve personal satisfaction and self-realization, which comes from a sense of accomplishment in their

work.

QC circle is the first real innovation of a kind of teamwork or workers, and it has an established history and expansion of activities nationwide in Japan. I believe that QC circle can coexist with these new types of teamwork of workers, and positively stimulate each other in the coming era. QC circles can learn from them, and even adopt some of the ideas of these new teamworks, to stimulate growth by taking higher responsibility and initiative.

QC circle is a part of TQC, and TQC is now facing a challenge from history, and evolving to TQM. Then, what about QC circles in the new era? The bottom line of my message is, first, QC circles can be a model of teamwork, and as I have mentioned, teamwork should be a more important element of the working way in human organizations in the next century. QC circles started when Japan entered the industrial society. We are now moving into the information society, and I think and hope that QC circles can make another significant contribution in the new era by flexible and creative responses to change, while solidly keeping its basic ideas and values.

Secondly, QC circle activities should be conducted as a part of regular work. QC circles started in Japan, first by a group of four men, at a time when Japanese people worked very hard, and didn't care much for enjoying their private lives. It might have been truly voluntary. But today, it aims at the improvement of regular work itself through the ideas of frontline people, and its final goal is to contribute to the company's operational performance. It's also a good way for employee education, with practical exercises and mutual development, and today, employee education is definitely a part of the regular job in the company's management viewpoint.

The third, the QC circle is still the best way to assure quality to customer at the front end. The final key for quality of products or services still rests with people on the front line, who are assigned to directly hand them, no matter advanced automation in the factories, or sophisticated computers in the offices are used. QC circle will be the best way to motivate people to carry out this mission through personal sincerity and mutual cooperation. In this context, quality depends finally on people's mind, their will, and their pride.

In conclusion, the QC circle is a great heritage of Japan from the 20th century, and will be a new challenge for teamwork in the 21st century. I wish people will enjoy QC circles with pleasure and excitement. ★