

Societas Quālitātis

Vol. 11 No. 4 Sep / Oct 1997

Union of Japanese Scientists and Engineers 5-10-1 Sendagaya, Shibuya-ku, Tokyo 151-0051 JAPAN



QC Circle Activities in Japan

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1. Birth of QC Circle Activities in Japan

(1) In August 1961, requests for publication of a magazine through which work leaders could study quality control and for a forum offering opportunities to talk about their workplaces were made at a round-table discussion entitled "How Work Leaders Should Promote QC Activities," sponsored by the *Hinshitsu Kanri* (Quality Control) magazine. In April of the following year, the Union of Japanese Scientists and Engineers (JUSE) responded by publishing its *Genba to QC* (Job Sites and QC) magazine (now called *QC Circle* magazine) and directed the formation of QC circles and their registration with QC Circle Headquarters at JUSE.

This gave birth to QC circles, small job-site groups enabling their members to study quality control and promote QC activities under the leadership of their supervisors while paying regard for humanity.

- (2) Initiated mainly at job sites in manufacturing companies, QC circles have spread among most job categories in all industries in Japan.
- (3) For more than 30 years, QC circles have greatly contributed to corporate management by making employees feel that their efforts are worthwhile, creating active and stable workplaces, improving the quality of products and services, reducing costs and enhancing operation efficiency.
- (4) In Japan, under the prevailing sluggish economy, business and work environments have become increasingly severe. To cope with this situation, QC circles are required to meet the demand and expectations of management and workplaces by expending greater efforts to upgrade product and service quality, cut costs and improve efficiency.

2. National Organization and system for promoting QC Circles and the Results of the Activities.

The national organization promoting QC circles comprises QC Circle Headquarters at JUSE, nine chapters and 38 districts. QC circle activities have been promoted via liaisons among organization units. The present status of the organization and the results of its activities are :

- (a) Number of instructors at QC Circle Headquarters : 125 (1996)
- (b) Number of companies and establishments that serve as secretariats :
 953 companies and places (1995)
- (c) Number of secretaries : 1,564 (1995)
- (d) Number of QC Circle conferences held during 1994 under the sponsorship of QC Circle Headquarters, chapters, and districts, and the number of participants and case presentations at the meetings :
 177 conferences, 102,712 participants, 3,369 presentations
- (e) Number of QC circles and circle members registered with QC Circle Headquarters: Approximately 390,000 circles and 3,000,000 members (February 1996)

- (f) Number of subscription copies of the QC Circle magazine : Approximately 110,000 (February 1996)
- (g) Number of countries (except Japan) in which QC circle activities have been introduced :
74 (February 1996)

3. Ten Features of QC Circle Activities

QC Circle Headquarters sponsors a QC Circle Symposium once a year. The purpose of this symposium is to enable all headquarters instructors who engage in giving guidance on and spreading QC circle activities to gather, analyze the current status of QC circle activities, and determine their future direction.

The 27th QC Circle Symposium took place on June 30 and July 1, 1995 under the theme "Appealing QC Circle Activities for the 21st Century." During the discussions, the following ten features of Japan's QC circle activities were defined.

<<Features of QC Circle Activities in Japan>>

- (1) QC Circle activities are being promoted by a private organization on nation-wide scale.
- (2) The "QC Circle Koryo (General Principles of the QC Circle)" and the "How to Operate QC Circle Activities" have been established.
- (3) Organizations for promoting QC circle activities have been installed within companies.
- (4) Both within and outside corporations, forums are available for making presentations, meeting and exchanging opinions and experiences regarding QC Circle activities.
- (5) QC Circle Headquarters in publishing its organ *QC Circle*.
- (6) Educational and training programs in quality control and QC circles are available.
- (7) Various methods for QC circles have been developed.
- (8) QC circle activities have been introduced to a wide range of industries and job categories.
- (9) Efforts are being made to spread QC circle activities abroad.
- (10) QC circle activities are contributing greatly to, for example, enhancing corporate structure and developing human resources.

4. Recent QC Circle Development Activities

As times change, revisions in social, business and work environments, and in the values of workers have affected the development of QC circle activities. Major changes and developments are :

- (1) The QC circle movement has diffused widely.
 - QC circle activities have spread not only to manufacturing divisions but also to administrative, sales and service divisions. Industries that have adopted the QC circle method include telecommunications (for example, NTT), construction, banks, hotels, retailers (department stores, supermarkets, and small shops), hospitals, distribution, travel firms, and railways (for example, JR).
- (2) QC circle activities have extended to corporate subsidiaries and affiliates.
 - Parent companies and their subsidiaries and cooperative firms work together in planning and operating educational programs and special functions related to quality control and QC circles.
 - Cooperative firms join forces to establish committees that plan and manage educational programs and special functions related to quality control and QC circles.
 - Spinning off, integration and restructuring of companies are under way to rationalize operations.
- (3) Companies are urged to enhance customer satisfaction and contribute to society.
 - To improve customer satisfaction and make a contribution to society, management and job site employees are required to work harder to assure top quality (the Product Liability Law took effect in July 1995), cut costs, and more than ever shorten delivery time.
- (4) The way of accomplishing work is changing and worker units are becoming smaller.
 - Owing to mechanization, automation and computerization, the latest equipment has been installed at job site, resulting in revised work patterns smaller units of employees.
 - The number of new operations that workers have never experienced has been increasing.

- (5) Yen appreciation, uncertain prospects for economic recovery and other factors have made making the business environment and corporate management increasingly severe.
 - The favorable environment for business and corporate management has forced companies to abolish life employment and seniority systems, rearrange personnel, discontinue part of irregular work shifts, close factories and slash budgets.
- (6) Greater hopes are placed on corporate goals for improvement and good results.
 - Companies expect improvements to produce effects that will lead to better returns from their operations. Management is becoming more result-oriented.
- (7) Changes in the values of work have been observed on the part of employees.
 - During World War II, emphasis was on self-denial for the sake of one's country. In QC circle activities, workers have devoted themselves to the corporate good by making use of one's resources. Currently, young people tend to pursue individual interests by making use of one's resources.
 - The pursuit of higher education and aging of the national population is in progress.
 - Work has become less of means of livelihood.
 - People want to study hard, work hard and relax to the fullest.
 - People are seeking self-realization by feeling that their work and life are worthwhile.
- (8) We have entered an age of international cooperation and role-sharing in politics, economy and industry.

5. Important Points in Reforming QC Circle Activities

The preceding is an overview of the circumstances under which QC circle activities were born, the features of their activities and recent developments. The following treats important points in reforming QC circle activities in the future (various measures for activating the QC circle movement) by citing specific cases.

***Important Point 1 : 1 Use Visual Management Tools (game methods to track QC circle activities)**

Inspection of workplaces often shows that it is not clear whether or not QC circle activities are being conducted. Unless a person understands whether his or her activities are normal or abnormal, no corrective action can be taken and such activities become worthless.

Therefore, to clearly show the number of problems resolved by QC circle activities and the resultant progress made, game methods should be introduced to encourage circle members to achieve their goals.

Instead of graphic charts, pictures related to such activities as building blocks, horse racing, mountain climbing, marathons, and golf will clearly show the progress of QC circles.

These methods enable managers and supervisors to compare the progress of QC circles with their goals and assist them in expediting their activities.

***Important Point 2 : Conduct Self-diagnosis of QC Circle Activities, Supervisors and Managers**

It is surprising that remarkably few companies understand in numerical terms and chronologically the extent to which their QC circle movement has achieved their goals or in itself has improved.

This makes it necessary to regularly confirm in numerical terms and chronologically whether as stated in the Basic Philosophy of QC Circle Activities : "For ourselves, for our workplaces and colleagues, and for our company" --- the purpose of QC circle activities has been fulfilled and QC circle activities have been activated.

To that end, QC circle members should make a self-diagnosis of their activities once or twice a year to understand the current level of their movement and their problems, and improve their QC circle work by converting their weaknesses into strength.

The advantage of this self-diagnosis is that, based on its results, QC circle members can fully discuss matters with their managers and supervisors to enable to receive further assistance from them.

Self-diagnosis must be conducted not only by QC circles but also by managers and supervisors as a means to regularly determine in numerical terms and chronologically whether managers and supervisors are fully performing their duties.

[Reference] Kyoji Ichikawa, *QC Circle Katsudo Kasseika no Jiko Shindan* (Self-diagnosis of Activation of QC Circle Activities), JUSE Publishing, 1990

***Important Point 3 : Use Task-achieving QC Stories**

In order for enterprises to survive and grow, it is essential that they create new businesses in addition to existing ones. So far, companies have managed to survive only if they handle existing businesses successfully. Through problem-solving QC stories, they have improved the quality of products and services, and streamlined their operations.

In the future, beset by a severe economic environment, companies will need to develop new businesses, different in nature from their existing line of endeavor and gain the skill to manage these new undertakings successfully. In other words, responding to the severe business environment by creating new products, services and processes will be the way for companies to survive and grow.

From this viewpoint, the amounts of new operations at companies and workplaces will increase. To respond well to new operations demands acquiring the skill to achieve good results by studying task-achieving QC stories in addition to the ongoing ability to solve problems.

Competent QC circles are requested to cope with a wide range of tasks, such as responding accurately to new operations, changing the status quo and creating more appealing quality, by making the most of task-achieving QC stories and thereby by fully meet corporate expectations.

[Reference] Editorial supervision by Noriaki Kano, *Kadai Tasseigata QC Stories* (Task-achieving QC Stories), JUSE Publishing, 1993

Editorial supervision by Noriaki Kano, *Kadai Tasseigata QC stories Katsuyo Jireishu* (A Collection of Cases in Which Task-achieving QC Stories Were Used), JUSE Publishing, 1994

Compiled by Hiroshi Odajima, *Eigyō no Mondai Hakken Kaiketsuho* (Methods for Identifying and Solving Problems in Sales), Japanese Standards Association, 1994

***Important Point 4 : Gain Strength by Using Prize Money for Recreational Activities**

QC circle activities do not continue for a long time without the spirit of play. The secret of activating QC circle activities and making them continue is to introduce the spirit of play into these activities and make them appealing and thus render these activities significant to circle members.

To that end, it is necessary to keep prize money that was given for improvement proposals, problem-solving, and case presentations and use it for recreational activities (trips to hot-spring resorts, after-work get-togethers, barbecue parties, bowling tournaments, etc.), thus gaining the strength of circle members. Managers, supervisors, promoters of QC circle activities, staff members of secretariats may be invited to join these activities.

***Important Point 5 : Make Presentations on Successful Operation Cases As Well As Improvement Cases (Avoid Presentations Becoming Uniform)**

Making presentations can be cited as one of the reasons for continued and active QC circle activities today. At companies that have carried out QC circle activities for a long time, presentations have become uniform and therefore less appealing. Therefore, besides presentations on problem-solving and improvement cases, it is suggested that more emphasis be placed on continuity of QC circle activities and case presentations on how

QC circle activities have been successfully operated. These cases may include stories of how circle members took trouble in operating their QC circles and how they grew through operation of their QC circles. It is also suggested that presenters be given time ranging from 10 to 20 minutes instead of a uniform 15 minutes ; that prior to presentations, they introduce episodes of their superiors' assistance to their QC circle activities ; and that at the end of presentations, questions be asked of superiors to make the presentations more interesting.

In any case, it is necessary that QC circle members exert their ingenuity in planning for and operating their QC circles so that they can play a leading role and also feel a sense of satisfaction and achievement in carrying out their activities and making presentations.

***Important Point 6 : Make Audience Serve As Judges (Operate Presentation Meetings So That Presenters and Audience Become Unified)**

Companies that have been successful and produced results in QC circle activities do not appoint specialist examiners as previously done, but make the entire audience serve as judges in order to create a greater sense of participation among the audience.

Prizes are not based on higher or lower scores but their categories include "humor", "idea", "teamwork", "analytical ability", "enthusiasm", "we had a happy time", "perseverance", "it was worth doing", and "it was good that we did it." The entire audience chooses prize winners by raising their hands. It can be expected that this method will unify presenters and the audience, making presentation meetings more exciting.

Recently, at the 3385th QC Circle Fresh Conference held on May 24, 1995 under the sponsorship of the Keihin District of the QC Circle Kanto Chapter, the "Fresh Conference," "New Challenge," "System Improvement," "Cost-cutting," "Idea implementation," "Management Has Taken Root," and "Improvement implementation" prizes were awarded to QC circles that made presentations.

***Important Point 7 : Hold Meetings for Supervisors and Promoters to Make Presentations on Improvement Cases**

It is suggested that in addition to QC circle members, supervisors and promoters of QC circle activities make presentations on cases in which they are promoting QC circle activities, including their involvement, assistance, and results, by using such QC methods as QC stories.

It is also recommended that superior cases be presented for evaluation at the Managers and Supervisors' Conference on Quality Control that annually takes place in November under the sponsorship of JUSE. Managers and supervisors will be stimulated by presentations that others make at the conference.

***Important Point 8 : Prevent QC Circles from Splitting into Two Groups --- Active and Inactive Circles (Give Each Circle More Than Three Issues to Resolve)**

Results of QC circle activities at companies that have promoted these activities for a long time show that QC circles are divided into two groups : active circles and inactive circles that are stagnant.

Reasons for being inactive consist not in QC circles but mainly in managers, supervisors, promoters, and staff members of secretariat who are often indifferent to and irresponsible for QC circle activities and also do not fulfill their own functions in these activities.

One condition for activating QC circle activities is that each circle should resolve more than three problems.

If the number of problems to resolve is less than two, QC circles often show few signs of activity. Furthermore, they often make presentations for the sake of presentations and carry out their QC circle activities as matter of duty because of tasks assigned to them. Under these circumstances, even if QC circle members resolve problems and make presentations on them, they are not satisfied enough and do not feel a full sense of achievement, remaining discouraged and unmotivated.

***Important Point 9 : Try Not to Spend Much Time on Preparing for Presentations
(Use Plans for QC Circle Activities and Reports on Results)**

Unexpectedly many QC circle members as well as managers and supervisors say that they like QC circle activities but that do not like making presentations. This is because it take more time to prepare for presentations than to carry our QC circle activities and therefore it affects production. In order to eliminate this, it is suggested that presenters make presentations by enlarging pages of the Plans for QC Circle Activities and Reports on Results by an overhead projector while asking the audience to look at copies of these documents. This method makes the Plans for QC Circle Activities and Reports on Results richer in content. In other words, this method makes it impossible to cheat the audience with hastily-prepared, smooth-tongued presentations full of honey words and instead, it produces presentations of diligent QC circle activities based on sangen-ism (three gen consists of genba (job site), genbutsu (actual things), and genjitsu (facts).

Furthermore, in case of making presentations at company-wide or outside conferences, it would be better to prepare new materials for presentations using an overhead projector and include in the materials episodes that feature operational aspects of QC circle activities, thereby making presentations easier to understand and meeting the expectations of the audience.

***Important Point 10 : Promote QC Circle Activities That Emphasize Efficiency
and Results (Meets Demands and Expectations of Companies)**

Due to sluggish economy, prospects of corporate business are not bright yet. Companies are working hard to reduce costs and overtime work, making QC circle activities outside business hours difficult. Companies that have conducted QC circle activities for a long time expect QC circle activities to be carried out in a manner to be directly linked with companies' operations and superior's policy, emphasize efficiency and results of operations, and produce real and tangible effects. In the future, it is increasingly necessary to operate QC circles so that their activities will meet the demand and expectations of companies.

***Important Point 11 : Review QC Circle Activities Under the Requirements
of Product Liability Law**

In June 1994, the Diet passed the Product Liability (PL) Law, in which companies shall take responsibility for defective products they produce, and the law was enforced in July 1995. With the enforcement of the PL law, companies need to review and improve their existing quality assurance systems. Because this will also affect QC circle activities, it is necessary to build systems that will be able to respond to the effects of such review and improvement.

***Important Point 12 : Acquire Abilities of Managing and Improving Even Alone
As Number of Circle Members Becomes Smaller**

With the introduction of automated equipment and computers, the number of people working at one workplace is becoming smaller. This prompts the number of QC circle members to decrease, putting more workload on each member and making their activities more difficult. Since it is conceivable that in the future, one workplace will be operated by one person, QC circle members need to acquire abilities of carrying out their activities even if they are alone or in a group of two to three persons ("personal quality control," or PQC).

To that end, QC circle members are required to acquire more skills through various educational and training programs as well as QC circle activities so that they can manage and make improvements even alone. With more skills and abilities, they will not be in trouble whenever they are assigned to different jobs or they work in different industries or if the time of retirement comes.

In the future, it is important to acquire essential skills and management techniques through QC circle activities so that one can make a livelihood by oneself and lead a happy and comfortable life (work life).

- [Reference] Takashi Omori et al.. PQC no Kihon to Jissen (Principles and Practice of PQC), Japan Productive Science Association, 1990
Takashi Omori et al.. PQC ni yoru Kaizen Katsudo no Susumekata (How to Promote Improvement Activities Through PQC, Japan Productive Science Association, 1996

***Important Point 13 : Note Revised Version of “Basics of QC Circles” To Respond to Rapid Social Changes and Make QC Circle Activities More Active and Continuous**

As many as twenty-six years have passed since the QC Circle Koryo was first published in 1970. In March 1995, in response to rapid social changes and in anticipation of further activation and continuity of QC circle activities, the Secretaries Meeting at the QC Circle Headquarters decided to revise the definitions in the “Basics of QC Circles.”

The points that were particularly clarified in this revision are :

- (1) The roles of executives and managers have been distinguished from what QC circle members should do.
- (2) Activities conducted at job sites constitute a central part of QC circle activities.
- (3) Terminology has been chosen so that it is easy to use even in the service industry.
- (4) Creativity, customer satisfaction, and contribution to society have been added.

The revised version of the “Fundamental of QC Circles” is as follows :



FUNDAMENTAL OF QC CIRCLES

What is the QC Circle?

The QC Circle is a small group in which

people who in the first line workplace continually improve and maintain the quality of products, services, job and so on.

This small group promotes the activity in such a way as to :

autonomously administer it, utilize the quality control concepts and techniques and others, display creativity, and make self-development and mutual development.

This activity intends to :

develop their capability, perform the self-actualization for QC circle members, make its workplace with full of brightness and vitality, enhance customer satisfaction, and make a social contribution.

The executives and managers,

in order to make the QC Circle activity successfully contribute to improving the enterprise constitution, implement company-wide improvement such as TQC or the likes by themselves.

facilitate the environment for the activity, and continually conduct appropriate guidance and support based on the respect to humanity.

aiming at the participation by everybody, and positioning the activity as important for human resource development and workplace vitalization.

The Basic Idea behind QC Circle Activities

- Display human capabilities fully and eventually draw out infinite possibilities.
- Respect humanity and build a worthwhile to live and happy bright workplace.
- Contribute to the improvement and development of enterprise.

Details will be discussed in the revised QC Circle Koryo to be published in May 1996.

The revised version should be used for discussion and review of definitions at each company.

6. Conclusion

If operated continuously for more than 30 years, any attractive, excellent QC circle faces problem as social, business and work environments, change. It is natural, but not inadvisable, that problems arise. Rather, the problem is that such matters are left unresolved, with no corrective actions being taken.

In such cases, QC circle members should think, "What would happen if QC circle activities were discontinued," or "What is the purpose and ideal of QC circle activities, and by what means can the purpose be achieved and the ideal realized?" In this manner, they rediscover the new meaning and appeal of QC circle activities and develop ways to achieve the purpose and realizing the ideal of QC circle activities.

Let us take action with today as the time for initiating new QC circle activities (changing the status quo) so that we can experience five kinds of joy :

- (1) Joy of fulfilling responsibility
- (2) Joy of achieving something
- (3) Joy of growing
- (4) Joy of being recognized
- (5) Joy of loving our work

This should lead to hearing circle members say, "I'm glad that we've carried out QC circle activities" and, "I want to continue working hard in the future."