

# “THE NEW QCC AND TEAM WORK MOVEMENT IN MEXICO”

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## Abstract.

This paper acknowledges the development and growth of QCC and other teams in Mexico in a very successful promotion that started 14 years ago in what is been called the New Movement of Mexican Teamwork activities. Mexican first QCC was created in 1976 and by 1982 around 362 QCC were operating in more than 20 companies. Unfortunately, this movement failed by late 1980's and most of the QCC activities simply disappeared. Actually this movement is managed nationwide through a non-for profit organization with 6 regional promotion partners and regional contests called Mexican Association of Team Work (AMTE). This movement is growing, is self-financed and has a prestigious image in Mexican TQM movement.

## 1. History of QCC in México [4].

Latin America pioneers of QCC are the Brazilians in VW who in 1971 established a Japanese type QCC and by 1985 developed nearly 1000 teams. In México QCC introduction began around 1973 in the Northeast of the country, establishing the first one in 1976.

The ITESM (Instituto Tecnológico de Estudios Superiores de Monterrey), in a research study of 1982, found 3 442 people working in 362 QCC in 21 companies in Mexican cities like México, Monterrey, Guadalajara, Cuernavaca, Puebla & San Luis Potosí (most of them from the private sector).

Dr. Augusto Pozo Pino [5] estimates that major development of QCC in Mexico can be found between 1980 and 1983 due to the massive promotion (consultants, articles, courses and seminars for QCC in the United States) and the unfortunate economic situation of the country and its industries that were looking to increase productivity, profitability and reduce costs.

There is no statistics of the Mexican QCC in the late 80's, but because of a misinformation, lack of support from the top, high dependence on external consultants and reduced promotion in the United States, many companies stopped developing QCC and by 1989, only those QCC in companies with a committed leadership and, well understanding of the essence of QCC, survived. Mexican QCC movement simply disappeared.

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|---|---|
| I work as a <input type="checkbox"/> Manager/Promoter in company <input checked="" type="checkbox"/> Free Consultant/Instructor     |   |
| I have <u>14</u> years' experience in the promotion of QC Circle activities   |   |
| (for free consultant/instructor)  | How many companies do you assist? <u>20</u><br>How many of them started QC Circles? <u>15</u> |
| QC Circle meeting takes place <input type="checkbox"/> after working hours <input checked="" type="checkbox"/> during working hours |   |
| QC Circle meeting is usually held <u>4</u> time(s) per month. Each takes <u>60</u> minutes.   |   |
| Visual aids to be used in this presentation: <input checked="" type="checkbox"/> LCD projector <input type="checkbox"/> OHP         |   |
| Address: Norte 81 No. 163, Col. Claveria, Mexico City, Mexico, 02080.   |   |

In 1990, Dr. Yuzuru Itoh † (former QA responsible in Matsushita Electric, Advisor for United Technologies – Otis elevators and international consultant) proposes the promotion of QCC through the creation of a forum where success stories of improvements could be presented and recognized. With the support of JETRO (Japan External Trade Organization office in Mexico) and other institutions like the CANACINTRA (Mexican Chamber of Manufacturing Industries), BANCOMEXT (National Bank for External Commerce), the ITESM, private companies like MITUTOYO and many Mexican experts (called the technical committee), this same year we organized the I National Contest of QCC in Mexico (Dec. 7-8, 1990). [4]

In order to manage and assure the future of this movement, in 1992 a Non for Profit (NPO) organization called The CNCCC, A.C. (Concurso Nacional de Círculos de Control de Calidad, A.C. or National Contests of QCC) was officially born with the initiative and personal support of 4 people: Hermelinda Yamazaki, Carlos Gonzalez, Sergio Garcilazo and Ricardo Hirata. This NPO was to organize the national event and training courses to promote a nationwide common language regarding teamwork and its tools.

The first 5 events (1990-1994) were developed in Mexico City and in an effort to create Regional Offices and promote the QCC movement nationwide, the 1995 the National Contest was successfully organized in the City of Merida (Yucatan State) by the Centro de Mejora Continua, his director Prof. Guillermo Vela and sponsored by the NPO. This was the beginning of the Southeast Regional Office (covering 3 States).

Following this successful experience, next regional events and promotion offices were organized in the following years: 1996 Regional event and office of Chihuahua State (Centro Chihuahuense para la Calidad y la Productividad), 1997 Regional event and office of the Northwest (Centro de Ciencias de Sinaloa) and in 2000 Regional event and office for Coahuila, Zacatecas and Durango States (GSEA Consultores) & Regional event and office for Veracruz and Puebla State (Managed by the NPO).

The plan for the next 3 years will promote regional events and promotion offices in at least 4 more States to increase coverage and demonstrate that the AMTE.

After the X anniversary in year 2000, the CNCCC (NPO) decided to change its name to The Mexican Association for Teamwork or AMTE (Asociación Mexicana de Trabajo en Equipo) to promote other services besides the National Forums, such as memberships, online web based information, etc.

Since the beginning the President of Mexico delivers the awards within the National Industrial Convention, and because of the transparency of the NPO, the Awards of all the National Forums and Contests are the most prestigious Nationwide for the teams, their members and their companies.

## **2. Mexican National Contests and Forums for Teamwork.**

The main statement in the mission of the Mexican Association for Teamwork or AMTE is to make a public recognition to those Mexicans that work in teams, and at the same time, promote a common language through the definition of Model Teams that all companies must benchmark. For that purpose, AMTE currently organizes four yearly National Events in one same week in October:

- 1) National Contest for Quality Control Circles (CNCCC, since 1990). Traditional QCC voluntarily formed by people in the frontline with a permanent and continuous lifespan (actually they choose their own problem to solve, but in many cases the companies may suggest the themes).
- 2) National Forum of Work Teams (FTE, since 1995). This event is designed for all improvement teams that are not properly QC Circles (commonly known in Japan as QC Teams). These teams are commonly non-voluntary and with a temporary project based life span, improving a top down defined problem.

3) National Encounter of Strategic Methodologies for Teamwork (since 2001). This new forum is designed for all other teams that are emerging in Mexican organizations that need to be known and seen in a public event, such as 6 Sigma teams, project management teams, TPM<sup>1</sup> teams, SMED<sup>2</sup> teams and many others that either analytic or synthetic methods for problem solving or target achievement.

4) National Encounter of Teamwork Coordinators (ENC, since 1997). Originally designed to promote a network of all participant team's coordinators (general facilitators) for open communication between the members, as well as to develop it as an important asset of the AMTE. This is not a contest and actually it is also the main process for updating and training these coordinators.

### 3. Types of Awards and Recognition Prizes.

The National Events give various awards in order to recognize the members and their teams:

1) General awards:

- a) All finalist teams and members receive a participation diploma, a medal and a Finalist Trophy.
- b) All finalist team coordinators with their team members also vote for special category awards such as: More integrated team, Best presentation material, more active presentation, etc.
- c) Finally, each National Forum (except for No. 4) defines best teams based on a technical evaluation of their case and are awarded as National Winners and Model Teams of the Year. They receive the official Trophy in a special ceremony days after the national events.

2) Special awards:



a) YUZURU ITOH AWARD.

- In honor of Dr. Itoh† as the key founder of the New Mexican Teamwork Movement.
- For all those companies (business units) and the Teamwork Coordination Office that have participated as finalists in the National Events in 5 consecutive occasions (different years) or 7 discontinued occasions.



b) MITSUNORI NAKANO AWARD.

- In honor of Prof. Nakano for all his support to the New Mexican Teamwork Movement.
- For all those companies (business units) and the Teamwork Coordination Office that have participated in the National Events in 10 occasions (different years).

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<sup>1</sup> TPM: Total Productive Maintenance - PM Circles.

<sup>2</sup> SMED: Single Minute Exchange Die - Improvement teams.

#### 4. Main Steps for participating in Mexican National Teamwork Events [3].

In order for a team to participate in one of the National Contests, they must follow the general procedure and comply with each year's rules and notification. Main phases are as follows:

- 1) Have a successful improvement case finished.
- 2) Select the National Event to participate in, depending on the type of team.
- 3) Submit a 21-page report of the successful case and information regarding its teamwork system to its regional promotion office (in the case there is no established promotion office, then send it to National Central Office).
- 4) Phase 1: Evaluation of the report. All reports are evaluated and those with the highest points are selected to participate in the National Contests (Regional promotion offices make an additional State or Regional level public presentation event and National Central Office only defines finalists through the report evaluation).
- 5) All those non-finalist teams receive a full feedback, statistics and recommendations for future tasks and get special discounts for the National Events. After the National Events finish they also receive a copy of the video of the National Winners or Model Teams of the Year.
- 6) Phase 2: All finalists present their cases in their selected National Forum in October. The public presentation is technically evaluated and best teams are selected and awarded as Mexican Model Teams of the year.
- 7) All teams (awarded and non awarded) receive a full feedback, statistics and recommendations for future tasks and a copy of the video of the National Winners or Model Teams of the Year too.

Awarded teams are now expected to show and teach their experience to all of those who require it and become the year's benchmark of each type of team (depending on the Forum they were winners).

#### 5. Facts and trends [1].

Analyzing the available and reliable data (starting 1992) and the statistics of all the participating teams in the National Events, we can report the following:

- 1) There was an important growth of the teamwork activities in the second half of 1990's but having a decrease in the last 3 years, not because companies are not working in teams, but because of other programs that are important to the organizations (cost reduction, delivery times reduction, effects of globalization, ISO 9000:2000, etc.). See fig. 5.1
- 2) 78 % of Mexican teams solve in average one case per year the rest solve 2 or more.
- 3) 87% of Mexican teams have one meeting per week meeting, 10% have 2 meetings / week (3% is others). See Fig. 5.2.

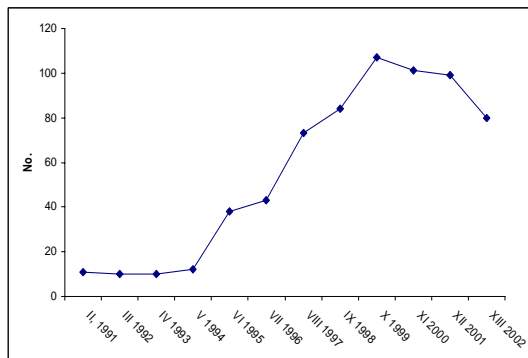


Fig. 5.1 Number of entering teams answering the notification and call for participation.

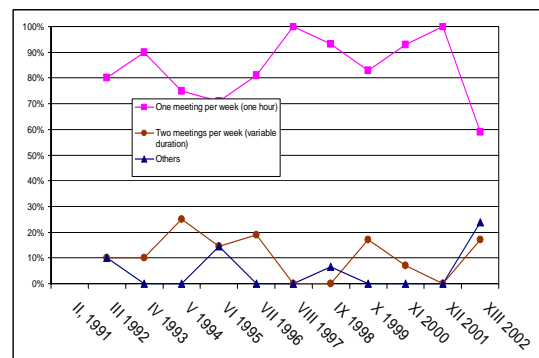


Fig. 5.2 % of finalist teams that have 1, 2 or other pattern for meetings per week 1992 – 2002.

- 4) Most of the teams have a meeting with a duration in between 60 and 90 minutes
- 5) 70% of the teams have their meetings within labor time.
- 6) 30% of the team members have higher education, the rest range from primary school (less than 10%), secondary school and junior high (60%).
- 7) Analyzing the use of the Seven QC Basic Tools and graphs, we find a consistent use of the Pareto Graph and the Cause Effect diagram along all this 13 years (See fig. 5.3) and recently there is an increase in the use of tools like Histogram, Control Chart and Radar Chart which can be interpreted as a better understanding of the basic tools itself, and also a better use of the Problem Solving Method (See Fig. 5.4).

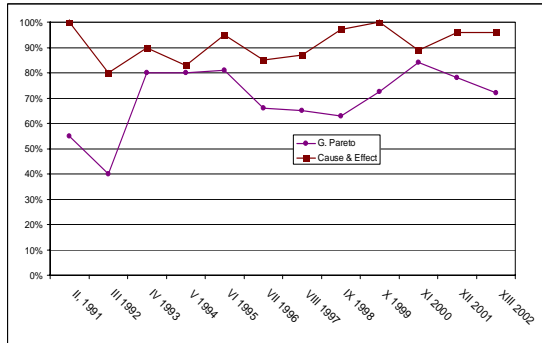


Fig. 5.3 % of finalist cases using Pareto Graph and Cause Effect Diagram 1991 – 2002.

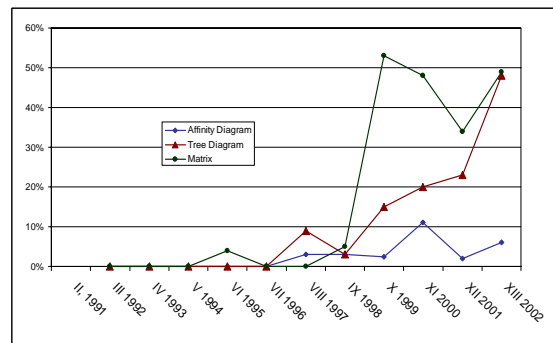


Fig. 5.4 % of finalist using statistical process control tools and radar chart 1991 – 2002.

- 8) Recently, teams are also using New Seven Management Tools in their problem solving process (see fig. 5.5), as well as other statistical tools such as Estimation and Test techniques, Sampling methods, Design of Experiments and others.
- 9) Regarding annual savings and/or results, and analyzing 2002 finalist teams we find that a team saves an average is US \$35 000 / year (minimum US \$ 7 000 and max. US \$ 3 000 000).

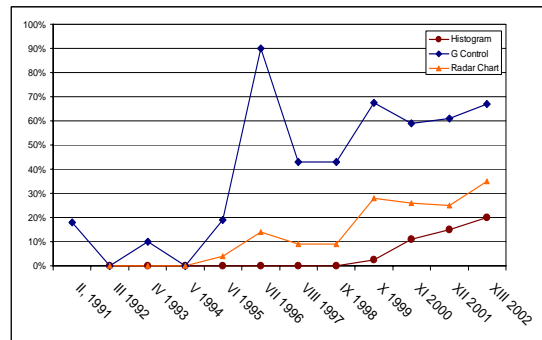


Fig. 5.5 % of finalist cases using New Seven Management tools Diagram 1991 – 2002.

- 10) In the last 6 years we have been able to demonstrate that companies are making a better use of the problem solving methods, specially the following:
  - a. Quantitative and data based theme selection.
  - b. Quantitative and evidence based selection of root cause analysis.
  - c. Definition of several solution alternatives or countermeasures (not only one).
  - d. Quantitative and evidence based selection of solution alternative or countermeasure.
  - e. Standardization procedures and definition of new process control parameters.
- 11) The AMTE has helped promote internal structures that help manage and promote teams within an organization.
  - a. Participating companies have a coordination and management structure for teams, training materials, facilitators and instructors.

- b. Recognition systems have developed from diplomas, medals and trophies, to also include the participation in corporate teamwork conventions, participation in National events, study tours, etc.
  - c. Top managers understand the importance of teamwork as continuous improvement strategy, rather than just the formation of teams.
  - d. Team members are now studying basic computer know how, and have changed from OHP slides to the use of computer-based software (example: PowerPoint, excel, etc.).
- 12) AMTE has demonstrated that to have success in teamwork is not a matter of cultural background, but more about a systemic approach to the development of a good strategy.
- 13) It is difficult to have the precise data, but AMTE estimates the existence of more than 12 000 teams nationwide and an important growth in the next years (including not only QC Circles, but other kind of teams). AMTE hopes to reach a number of 50 000 by 2010.

## 6. Conclusion.



Fig. 6.1 Logo of AMTE.

The New Mexican Movement of Teamwork started in 1990 as stand alone initiative of a visionary man and the support of the Japanese Government Agency for Trade, as well as other Mexican institutions. Later it was supported and continued by the members of its technical committed who shared a common goal: Development of a common language regarding teamwork in Mexico.

14 Years later, the AMTE is a self financed Non for Profit Organization that organizes 4 National Events to promote teamwork, its benefits and means, and also gives a public recognition to those Mexicans that participate in teams, learn, apply their knowledge and experience and benefit both, the company and themselves through self development and mutual development.

The AMTE (Mexican Association for Teamwork) has still a long way to go. Must re structure and create a flexible organization that promotes teamwork, its techniques, methodologies and benefits through out different channels (chapters, regional offices, IT, training, conferences, networking, etc.).

We are very glad to celebrate next year, our XV anniversary of the QCC National Contest and the New Movement of QCC and Teamwork in Mexico.

## 7. References.

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3. Asociación Mexicana de Trabajo en Equipo, Reglamento de los Concursos Nacionales 2003, AMTE, México.
4. Castellanos, Verónica and Hirata, Ricardo, "El desarrollo y la tecnología de los equipos de trabajo mexicanos: Un paseo por los últimos años del nuevo movimiento", notes from the AMTE (Mexican Association for Teamwork), 2002.
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