



ASQC - MANITOBA SECTION 0406  
1670 PORTAGE AVENUE  
WINNIPEG, MANITOBA  
R3J 0C9

## Deming Satellite Broadcast July 24th & August 14th, 1991

### Presentation

- 12:00 p.m.- 12:10 p.m. Opening remarks by current Section Chairman, Barry W. Colby
- 12:10 p.m.- 12:15 p.m. Charlene Okell - Science Technology Awareness Network
- 12:15 p.m.- 12:30 p.m. Dr. Madhav Sinha with An Introduction to Deming "New" Management Philosophy
- 12:30 p.m.- 1:00 p.m. Lunch
- 1:00 p.m.- 2:00 p.m. Dr. Deming on Optimization Management Losses, and Transformation Elements
- 2:00 p.m.- 2:20 p.m. Phil Stevens with an Overview of the Upcoming 91/92 Program Event
- 2:20 p.m.- 3:20 p.m. Dr. Deming on Economics For Management
- 3:20 p.m.- 4:20 p.m. Discussion with Dr. Deming Questions and Answers

A.S.Q.C. Manitoba Section and the Science Technology Awareness Network would like to thank you for your participation in this event. If you have any questions, concerns, or comments, we will be available after the broadcast.

### Upcoming Events

**Philip Crosby on Successful Leadership for Managing Quality  
September 17, 1991 in Washington, D.C.**

This seminar/telecast examines the structure of the successful organization and the primary concerns of the leaders: quality, finance, and relationships. It addresses women and minorities' special problems in attaining executive positions and offers practical solutions. Discussion includes leadership's accountability to work and family and whether both can be served.

**American Society for Quality Control  
Manitoba Section Officers (1991-1992)**

**Area Code (204)**

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**MANITOBA SECTION — ASQC  
WINNIPEG, CANADA**

**21 YEARS OF LEADERSHIP AND COMMITMENT TO QUALITY**

**1970 — 1991**

**Our Manitoba Section has:**

- Sponsored University and Community College level certificate and diploma courses in quality control and quality assurance management, regarded as being of top calibre in this country by any measurement.
- Been the only other Canadian province (besides Quebec) that had officially got government proclamations for October 1988 month as Quality Month in the province.
- Many certified Quality Engineers, Certified Reliability Engineers, Certified Mechanical Inspectors, Certified Quality Auditors on its credit list.
- Reached to over half a million population in the province through its activities and programs published in the leading local daily newspaper; more than once.
- Sponsored and/or co-sponsored many many workshops, seminars and tutorials for the benefit of community and other non-ASQC professional groups.

**Our Manitoba Section members have:**

- Written textbooks, manuals and study guides in the field of Quality Assurance.
- Published many many world class research papers on various topics in quality assurance and quality control.
- Chaired and/or co-chaired various standard writing committees in Canada, U.S., and Europe.
- Participated in the establishment of Canadian National Quality Award.

## Manitoba Section 0406

Currently our membership is approximately 40 people and growing. The backgrounds of these members is very diverse and they come from a variety of industries within the community.

## Chairmen of the Manitoba Section ASQC (1970-1991)

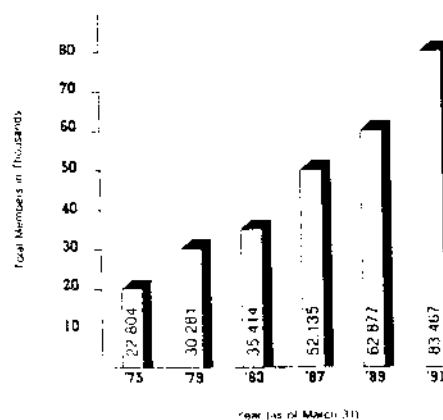
1. Edward F. Jacobsen
2. Fredrick E. Prentice
3. Melvin L. Jarvis
4. F. Lloyd Hoskins
5. Walter O. Willborn
6. Gilbert A. Redekopp
7. Peter H. Bartlett
8. Philip Kowalski
9. Charles J. Borse
10. G. William Nickerson
11. Lai K. Chan
12. Madhav N. Sinha
13. William E. Litchfield
14. Peter Bernert
15. Barry W. Colby

## Society's Membership Grows at Record Pace

**A**SQC's total membership reached 83,467 as of March 31, according to the annual report of the executive secretary. That's up 12,426 from the 1990 total of 71,041—an increase of 17.5%. There's good news behind the figures, too. Membership retention is at a record 81.5% and this year's total includes a record number of new members—25,550.

The rapid growth in membership that ASQC has experienced has

*ASQC Membership Growth*



moved the Society into the top 2% of associations ranked according to total membership and dollar volume. Previously, ASQC had ranked in the top 10%.

**Dr. W. Edwards Deming  
Consultant in Statistical Studies**

4924 Butterworth Place  
Washington, DC 20016  
(202)363-8552

W. Edwards Deming has been a consultant for forty years with practice world wide. His clients include railways, telephone companies, carriers of motor freight, manufacturing companies, consumer research, census methods, hospitals, legal firms, government agencies, and research organizations in universities and in industry. All the intercity motor freight in the United States and Canada, for example, is studied by statistical procedures prescribed and monitored by him. He is best known for his work in Japan, which commenced in 1950, and created a revolution in quality and economic production.

In 1951, Japanese manufacturers created, in his honor, the annual Deming Prize. In May 1960, the Emperor of Japan decorated him with the Second Order Medal of the Sacred Treasure.

The President of the United States awarded him the National Medal of Technology on 25 June 1987.

Dr. Deming is not affiliated with any organization, institute, or association.

He is a member of the International Statistical Institute, an academy, and a dozen other professional and scientific societies.

In 1986, he was elected into the National Academy of Engineering, and into the Science and Technology Hall of Fame in Dayton, Ohio. In 1988, he received the Distinguished Career in Science award from the National Academy of Sciences.

He received his doctorate in mathematical physics from Yale University in 1928. A number of universities have awarded to him the degrees LL.D. and Sc.D., *honoris causa*: the University of Wyoming, River College, the University of Maryland, Ohio State University, Clarkson College of Technology, Miami University, The George Washington University, the University of Colorado, Fordham University, University of Alabama, and the University of Oregon. In May 1991, he was awarded honorary doctorates from Yale University, American University and the University of South Carolina.

Dr. Deming is the author of several books and 170 papers. His most recent book is *OUT OF THE CRISIS* (Center for Advanced Engineering Study, Massachusetts Institute of Technology, 1986). Since 1946, he has been a Professor of Statistics at the Graduate School of Business Administration of New York University. He has also been a Distinguished Lecturer in Management at Columbia University since 1985. He has lectured in many universities in this country and abroad. His 4-day seminars have reached 8000 people per year for over ten years.

Dr. Deming is a perennial student of the theory of music, and has written two Masses and several canticles and anthems.

# THE DEMING PRIZE

BY  
KENICHI KOYANAGI

The Union of Japanese Scientists & Engineers  
Tokyo, Japan  
1960

Special mention must be made of the fact that the Deming Prize was instituted with gratitude to Dr. Deming's friendship as well as in commemoration of his contributions to Japanese industry. When Dr. Deming gave his 8-day course in 1950, Japan was in the fifth year of Allied occupation. Administrative and all other affairs were under rigid control of the Allied forces. Most of the Japanese were in a servile spirit as the vanquished, and among Allied personnel there were not a few with an air of importance. In striking contrast, Dr. Deming showed his warm cordiality to every Japanese whom he met, and exchanged frank opinions with everybody. His high personality deeply impressed those who learned from him and became acquainted with him. He loved Japan and the Japanese from his own heart. The sincerity and enthusiasm with which he did his best for his courses still lives and will live forever in the memory of all the concerned. Dr. Deming again visited Japan in the summer of 1951 and in January, 1952, both times invited by the JUSE. In 1951, he gave a seminar course on sampling surveys and two 8-day courses on quality control, and in 1952 he offered an after clinic on sampling techniques. Featuring all these educational activities was his deep love and high humanness. Herein, lies why we loved and respected, and still love and respect, him. And this is the very reason why the Deming Prize was instituted and has since been managed with recommendable results.

## The Fourteen Obligations of Top Management

1. Create constancy of purpose for improvement of product and service.
2. Adopt the new philosophy.
3. Cease dependence on inspection to achieve quality.
4. End the practice of awarding business on the basis of price tag alone. Instead, minimize total cost by working with a single supplier.
5. Improve constantly and forever every process for planning, production, and service.
6. Institute training on the job.
7. Adopt and institute leadership.
8. Drive out fear.
9. Break down barriers between staff areas.
10. Eliminate exhortations, and targets for the work force.
11. Eliminate numerical quotas for the work force and numerical goals for management.
12. Remove barriers to pride of workmanship. Eliminate the annual rating or merit system.
13. Institute a vigorous program of education and self-improvement. Education is required for changes in management.
14. Put everybody in the company to work to accomplish the transformation.

*W. Edwards Deming*  
7/15/86

Dr. W. Edwards Deming

# Management by Quality Objectives

Quality objectives become the business strategy when the Deming principles are added to traditional management practices.

by Bernard Stein

**W** EDWARDS DEMING HAS PROVIDED management with 14 basic principles for achieving productivity through quality. When initially introduced to Deming's 14 points, managers might not clearly understand how to apply them to their business strategy, especially when the strategy depends on the traditional system of management by objectives (MBO). The classical MBO process is interactive and sets periodic detailed department objectives, assigns resources, reviews accomplishments at the conclusion of the selected period, reviews objectives that were not met, and then sets new objectives for the next period.<sup>1</sup> Coupling Deming's principles with the MBO process yields management by quality objectives (MBQO), thereby putting Deming's 14 points to work in an existing MBO culture.

## The process

Deming's principles can be arranged into sets of functional quality goals that are easier for traditional managers to understand. These goals can be implemented by the entire work force and can be easily measured. The functional goals include:

- General goals for management
- Production and production support goals
- Training goals
- Goals for the entire work force

The process for setting objectives around these functional goals is illustrated in Figure 1. The 14 points are arranged within the functional goals to help set objectives. Each functional organization in the company is required to set specific annual measurable objectives under each of Deming's 14 points and is held accountable for planning, executing, and measuring the progress of each objective. The simplified process diagram indicates the sequence of events and feedback required to perpetuate the MBQO process.

The process used for setting quality objectives is similar to setting more conventional objectives such as product cost, project schedules, profit, and product reliability. Initially, quality objectives are set in conjunction with traditional objectives, and as the process continues, the repetitive application of Deming's 14 points should displace the need to set the conventional numerical objectives.

Tables 1, 2, 3, and 4 are examples using the quality assurance department of Instrumentation Laboratory, Lexington, MA, as a model for setting yearly quality objectives. Note that each of Deming's goals has an objective attached to it. Quarterly target completion dates (not shown) would be estimated and added as part of the format.

Examples of quality objectives for several other key corporate functions are given in Table 5, illustrating one strategic quality objective for R&D, production, service, and finance to provide insight

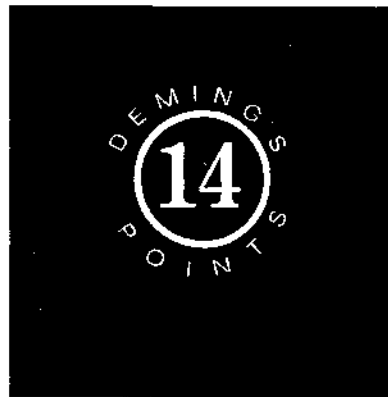
into the process of MBQO in these organizations. The Deming goals—including consistency and continuity, statistical evidence, and training supervisors—are given to all functional managers at the beginning of each fiscal year.

Detailed objectives are created for each goal along with target completion dates and a plan for meeting these dates. The objectives and plans are formally published and distributed to top corporate management for approval. The functional managers meet with their respective vice presidents to review quarterly progress and, if necessary, reset the timetable and planning of the quality objective commitments. In this way, the process is continuously updated, and performance is periodically measured against the plan. In addition, incentives for meeting quality objectives are created and awarded in the same fashion as those for conventional sales and profit objectives.

## Success and opportunities

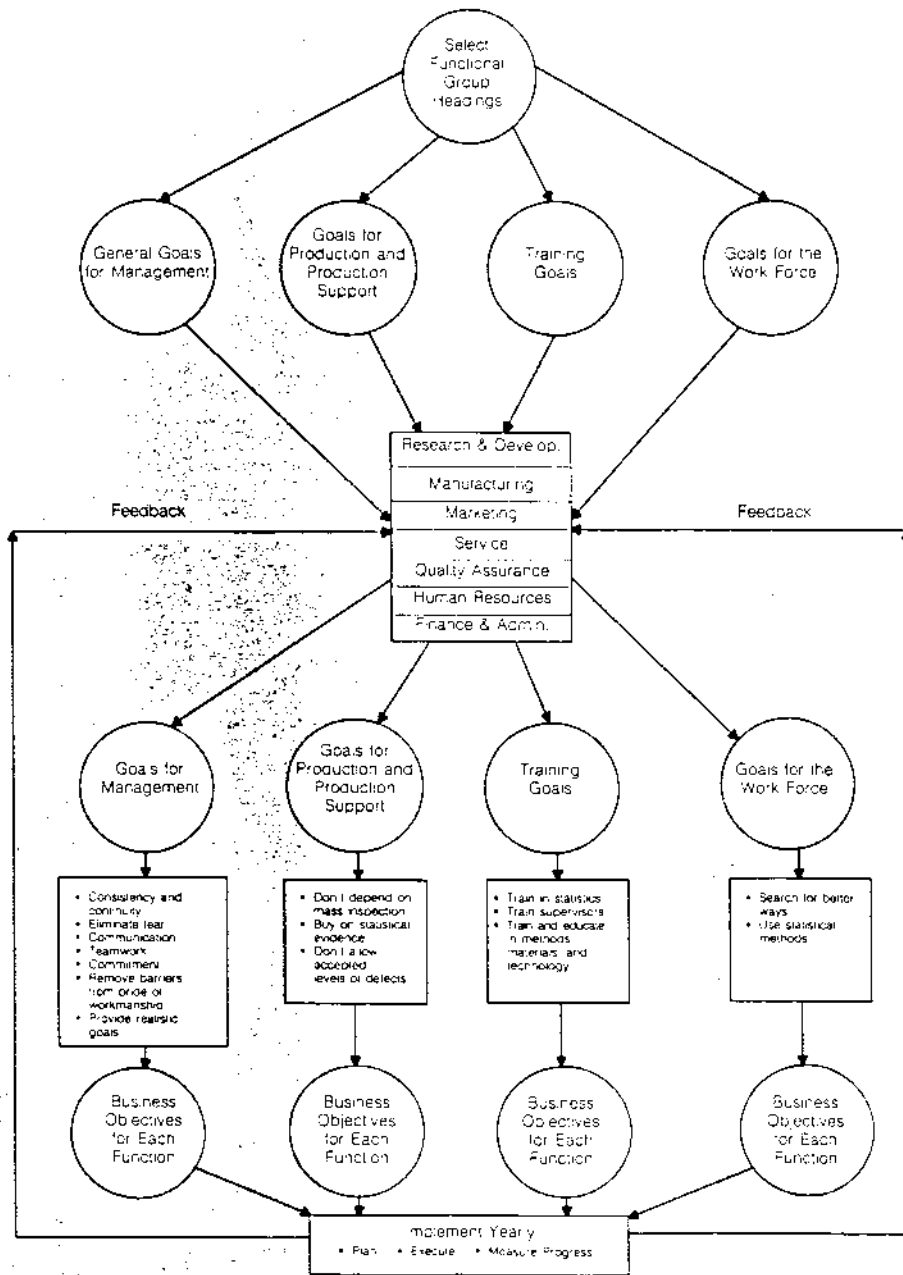
Instrumentation Laboratory (IL) was formed in 1959 as a development and manufacturing company to provide novel and efficient instrumentation for the clinical laboratory. Early in its history, IL adopted MBO as the way to manage for quick growth and profitability. This approach was successful until the late 1970s, when IL was faced with strong foreign and domestic competition, the high cost of liability insurance, regulated medical testing, and cost containment policies in hospitals. Cost containment policies and diagnostic-related groups forced hospitals to either become more profitable or face the possibility of going out of business.

This new business environment threatened IL's existence. In 1982, the company was sold to Allied Corporation. Since then, IL has been con-





**Figure 1. Process Logic Diagram**



solidating its management and resources, gradually bringing internal processes and systems under control. It has become clear that MBO alone does not address the needs of the new competitive environment. IL needed corporate cultural changes that focused on the premise that, through quality awareness, substantial improvements in business efficiency would be obtained.

In 1988, IL initiated a process to manage quality by adopting Deming's 14 points and setting specific, timely, measurable objectives against each point. Over the past year, IL has been making substantial progress by:

- creating a corporate creed that focuses on establishing consistency and continuity.
- creating and implementing an employee suggestion program to help eliminate fear and encourage communication. Suggestions have saved more than \$250,000.
- developing a corrective-action process for continuous improvement that encourages teamwork and increases efficiency.

**Table 1. Quality Assurance Management Objectives**

Goal	Corresponding Objective
1. Achieve consistency and continuity	1. Create corporate creed
2. Eliminate fear and encourage communication	2. Create an employee program
3. Encourage teamwork	3. Develop process for corrective-action programs
4. Define management's permanent commitment to quality and productivity	4. Develop quality philosophy program (work with all corporate functions)
5. Provide realistic goals	5. Work with R&D to improve process and to set R&D schedules
6. Remove barriers to pride of workmanship	6. Create an outstanding employee recognition program

- creating and implementing an employee recognition program to help remove the barriers to pride of workmanship. This program, along with the suggestion program, was the subject of a paper selected by the National Association of Suggestions Systems for its 1988 annual paper award.<sup>2</sup>
- developing and implementing an outside-supplier sourcing plan to ensure that purchases were based on statistical evidence and not price alone.
- investing in many of the Conway Quality video training programs to help educate and train supervisors, particularly in improving methods and productivity.

**Table 2. Quality Assurance Production Objectives**

<b>Goal</b>
1. Don't depend on mass inspection
2. Make purchases based on statistical evidence, not price (reduce number of suppliers)
3. Don't allow commonly accepted levels of mistakes, defective materials, and defective workmanship
<b>Corresponding Objective</b>
1. Plan an SPC policy (work with production)
2. Develop an outside sourcing plan (work with production)
3. Create processes that improve quality levels for continuous improvement (work with production)

**Table 3. Quality Assurance Training Objectives**

<b>Goal</b>
1. Train work force in statistics
2. Focus supervisor to help people do a better job
3. Institute training and educational methods on new methodology and technology
<b>Corresponding Objective</b>
1. Plan training programs (work with Human Resources Dept.)
2. Plan supervisory training program (work with Human Resources Dept.)
3. Investigate video programs

**Table 4. Quality Assurance Objectives Pertaining to Entire Work Force**

<b>Goal</b>
1. Search for better ways to improve system
2. Use statistical methods
<b>Corresponding Objective</b>
1. Develop process for corporate field failure reporting
2. Implement SPC in QA to identify processes that are out of control

**Table 5. Examples of Objectives for Other Functional Groups**

	Management Objectives	Product and Product Support	Training	Work Force
Deming's Goals	Consistency and Continuity	Statistical Evidence	Training Supervisors	Search for Better Ways
Function				
Research and Development	Worldwide development process	Set production specs based on being in control over 3 $\sigma$	Plan and implement training program (work with Human Resources Dept.)	Improve analysis phase of development using Taguchi Methods
Production	Investigate documentation system across facilities	Implement statistical supplier rating program	Plan and implement SPC training	Identify processes with high failure rate for analysis and resolution
Service	Consolidate worldwide service reporting	Investigate applying SPC to quality of service	Plan and implement a supervisor training video program	Improve field feedback system on failures (plan)
Finance	Investigate worldwide finance computer networking	Support capital requisitions for quality supplier, not low-cost supplier	Plan and implement supervisor training program (work with Human Resources Dept.)	Improve capital authorization procedure

- developing and beginning to implement a quality awareness program that defines management's commitment to quality and productivity.

But IL has barely gotten started. Substantial opportunities still exist, particularly in setting more realistic R&D schedules, implementing SPC into the manufacturing process, implementing employee training programs in the tools of quality, and helping supervisors do a better job. As with the MBO process, quality objectives that are not totally achieved must be reset and aggressively addressed by all available resources on a continuing basis.

In a brief period of time, IL has experienced success, and opportunities for improvement have become highly visible when the MBQO process has been applied. Timely quality objectives must be created around each of Deming's 14 points and progress measured periodically. If the process is implemented continuously, I believe a

complete cultural metamorphosis, in which quality objectives become the business strategy and continuous quality improvement becomes a way of life, is inevitable.

### References

1. "Management by Objectives, A Modern System for Getting Results," *Modern Business Reports* (New York: Alexander Hamilton Institute, Inc., 1978).
2. "A Program to Revitalize a Corporate Culture for Competitiveness," presented by Bernard Stein at the annual meeting of the National Association of Suggestions Systems, Orlando, FL, September 1989.
3. "The Right Way to Manage," videotapes produced by Conway Quality, Inc., Nashua, NH, 1986.

**Bernard Stein** is a consultant with Stein Consulting Services in Ogunquit, ME. He earned a master's degree in mechanical engineering from The City College of New York. Stein is a member of ASQC.

# 1991 MANITOBA QUALITY MONTH

## SURVEY

### QUESTIONNAIRE

## FOR MANAGERS AND PROFESSIONALS

**Results to be released  
on October 1, 1991  
during the Fourth Annual  
Manitoba Quality Month Forum 1991**

In an attempt to gauge the continuing effort and to identify and track down current opinion on a wide variety of quality-related issues, the Manitoba Section of ASQC is requesting you to take a few minutes to fill out this questionnaire. Please put a circle or check mark for your appropriate answer where applicable. Be very brief whenever you are asked to write something as an answer.

Return the questionnaire back to us by the end of the day. Your efforts will be extremely helpful for us in putting together a report later on describing what managers and professionals think of quality of products and services in Manitoba.

*Thank you*

July 10, 1991

Survey Sponsored and Conducted by  
the Manitoba Section of the American Society for Quality Control

1 Thinking about all the goods and products you buy, in general, how do you determine the quality of products? That is, what do you look for in order to know that a product is of high quality?

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2 When you think of companies that you associate with high quality, which five Manitoba companies come to your mind?

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3 Following are some factors considered important in judging the quality of a product. For each, please rate, how important do you personally think, each factor is on a scale of, say, 1 to 10. ("10" means the factor is very important and "1" means it is not at all important.

a. Lasts a long time	1	2	3	4	5	6	7	8	9	10
b. Appearance	1	2	3	4	5	6	7	8	9	10
c. Easy to use	1	2	3	4	5	6	7	8	9	10
d. Type of warranty given	1	2	3	4	5	6	7	8	9	10
e. Availability of services	1	2	3	4	5	6	7	8	9	10
f. Performance	1	2	3	4	5	6	7	8	9	10
g. Brand name	1	2	3	4	5	6	7	8	9	10
h. Easily repaired	1	2	3	4	5	6	7	8	9	10
i. Price	1	2	3	4	5	6	7	8	9	10
j. Other _____	1	2	3	4	5	6	7	8	9	10

4 Thinking **only** about the **country** in which a product is made, which country do you think produces superior quality products to meet your own personal expectations?

- a. U.S.A.
- b. CANADA
- c. Japan
- d. Western Europe
- e. All equal

5 Thinking about the quality, if "1" means an exceptionally poor product and "10" an exceptionally good product; how would you rate the quality of

a. A Canadian product	1	2	3	4	5	6	7	8	9	10
b. Manitoba product	1	2	3	4	5	6	7	8	9	10

6 Over the next five years do you expect the quality of Canadian-made product to

- a. Improve
- b. Stay the same
- c. Get worse

**7** We have been talking about quality of products. Now, I would like to ask you about service. If "1" means an exceptionally poor service and "10" an exceptionally good service, how would you rate the quality of services in Manitoba's

a. Hotels	1	2	3	4	5	6	7	8	9	10
b. Banks	1	2	3	4	5	6	7	8	9	10
c. Airlines	1	2	3	4	5	6	7	8	9	10
d. Insurance companies	1	2	3	4	5	6	7	8	9	10
e. Hospitals	1	2	3	4	5	6	7	8	9	10
f. Government services	1	2	3	4	5	6	7	8	9	10

**8** Thinking about the services which most directly affect you, regardless of level of government, in general, how satisfied are you with the quality of government services?

- a. Very satisfied
- b. Fairly satisfied
- c. Not too satisfied
- d. Not at all satisfied

**9** Over the next five years do you expect the quality of government services to

- a. Improve
- b. Stay the same
- c. Get worse

**10** What in your opinion is the most important thing to do with regarding quality improvement in Manitoba businesses?

- a. The provincial government and local businesses should establish a Quality Training Centre
  - b. The local universities/colleges/schools should (must) start teaching subjects on quality
  - c. Both of the above, and more as suggested
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**11** This last question is about you and your own company.

- a. Could you tell me the kind of business or industry you work in, and the kind of work you do.
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b. What was the last grade or class you completed?

- i) High School incomplete, Grades 9-11
- ii) High school graduate, Grade 12
- iii) Technical, trade, or business after high school
- iv) College, university incomplete
- v) College, university graduate
- vi) Post graduate of a university

c. Does your company/organization have a full time

- i) Quality Assurance Coordinator/Manager
- ii) Course or training program entirely devoted to quality

A BACKGROUNDER TO  
DR. DEMING'S 14 POINTS FOR BETTER MANAGEMENT

by

Madhav Sinha, P.Eng.  
Chairman, Education Committee  
Manitoba Section ASQC, Winnipeg, Manitoba, Canada

[Presented at the July 10, 1991 Dr. Deming's live satellite seminar telecast from George Washington University in Washington, D.C. held in Winnipeg, Canada.]

This brief presentation is about Dr. Deming's proposal to all managers, and especially the top executives, on "how to" get out of the "economic mess" (he calls it the "crisis") that we are in.

THE CRISIS DEFINED

"The biggest problem that most any company in the Western world faces is not its competitors, nor the Japanese. The biggest problems are self-inflicted, created right at home by management that are off course in the competitive world of today . . .

Everyone doing his best is not the answer. It is necessary that people know what to do. Drastic changes are required. The responsibility for change rests on management. The first step is to learn how to change. Long term commitment to new learning and new philosophy is required of any management that seeks to improve quality and productivity . . .

The timid and the faint-hearted, and people that expect quick results, are doomed to disappointment."

(W. Edwards Deming)

DEMING'S 14 POINTS FOR BETTER MANAGEMENT

1. Create constancy of purpose for improvement of product and service.

To Stay, Survive and Thrive in business for tomorrow.  
Stay on course, meet target, manage the "spread" and the "variation" (i.e. "variability").

Create a plan.

Plan for CQI (Continuous Quality Improvement).

Plan with customers in mind, using team approach.

Everything is top management responsibility, no short-term thinking will do.

Make a road map for your corporation, make policy, set core values, plan for long term.

Talk is cheap.

Visions and management intentions are thwarted by systems, styles and procedures.

2. Adopt the new philosophy.

The old philosophy of "working harder and smarter" does not work any more. Quality must become the new religion.

Quality is not incompatible with price or productivity.

Deming's chain reaction, improving quality improves everything.

Think in terms of processes and systems and continuous quality improvement.

We must plan for it.

3. Cease dependence on inspection to achieve quality.

"Build quality in", create quality at the design stage.

Teaching adult is more difficult than teaching children.

Any theory is universal, but you will be talking to the walls if people can't see it applying to their jobs.

4. End the practice of awarding business on the basis of price tag alone. Instead, minimize total cost by working with a single supplier.

Improve quality of supplies, train and educate your suppliers.

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

Don't worry about measuring waste and productivity at the end. It is better to worry about and work on the processes, materials etc. and about the people, that produce the work product.

Every hotel just completed, every report, every work (no matter how repetitious) should be better than the last one just completed, better than the one completed a year ago, and better than one completed two years ago. This is what continuous quality improvement (CQI) is all about.

It is possible by improving the processes, and the input to those processes.

6. Institute training.

"The greatest waste in America is failure to use the abilities of people" (Dr. Deming).

Training for any job must relate to customer's needs. One of the biggest problem on the matter of training in America is that very few managers would agree on what should the topic of training be for their workers. No one ever trained managers themselves on principles of quality assurance and the use of statistical tools and techniques.

7. Adopt and institute leadership.

"The job of management is not supervision, but leadership. . . . The required transformation of Western Style of Management requires that managers be leaders."

The old management styles by numbers, MBO, quota system, performance appraisal and such things must be abolished. Back to basics is not enough any more.

8. Drive Out Fear.

Create an atmosphere of mutual trust. People are afraid; because they might loose job because the company will go out of business; their ideas are never welcomed, their questions are considered attitude of treason, their contributions may lead to promotion of another colleague or his boss, and so on and so forth.

9. Breakdown barriers between staff areas.

Team work is badly needed in every company throughout North America. Change the system so that managers and people in different departments, sections and branches talk to each other - everyone is customer to each other. Managers job is to simplify things, not to complicate it.



10. Eliminate slogans, exhortations, and targets for the workforce.

Slogans, posters and pictures on the walls directed to workers hopefully to improve productivity, efficiency etc. are nothing but cruel joke. Accordingly to Dr. Deming, they are directed at the wrong people. The management are asking the workers to do what they are unable to do. Most of the time it is the fault of the system, and only managers can change/improve the system, not the workers.

11. Eliminate numerical quotas for the workforce and numerical goals for management.

A quota is a fortress against improvement of quality, and totally incompatible with never-ending improvement. It takes away the pride of workmanship. Who made the defects, errors, mistakes? The worker, or the system? Where is the evidence?

The job of managers is to replace work standards by knowledgeable and intelligent leadership. Leaders should know the jobs in their organizations.

The goals set for management must be supported with a plan or method for accomplishment.

12. Remove barriers that rob people of pride of workmanship.

The barrier is the annual rating of performance. People everywhere work in a system where no one is sure what's right or acceptable work and what's unacceptable (to the end customer). How can managers say one thing right yesterday, wrong today?

There are certain problems in the company going on for years and years, and no manager has ever shown leadership and come out to change the process. Passing the buck is normal thing everywhere.

Absenteeism and mobility of the workforce are largely the result of poor supervision and poor management.

Pride of workmanship means more to the workers than clean cafeteria, tennis courts and gymnasiums.

13. Institute a vigorous program of education and self-improvement for everyone.

Without a continuing education program for everyone in the company, good people will soon become not-so-good. How can management not have any plan for the continuing education of their workers, and for themselves?

14. Put everybody in the company to work to accomplish the transformation.

Managers will have to organize themselves as a team to advance the thirteen above points. The initiative must come from top management.

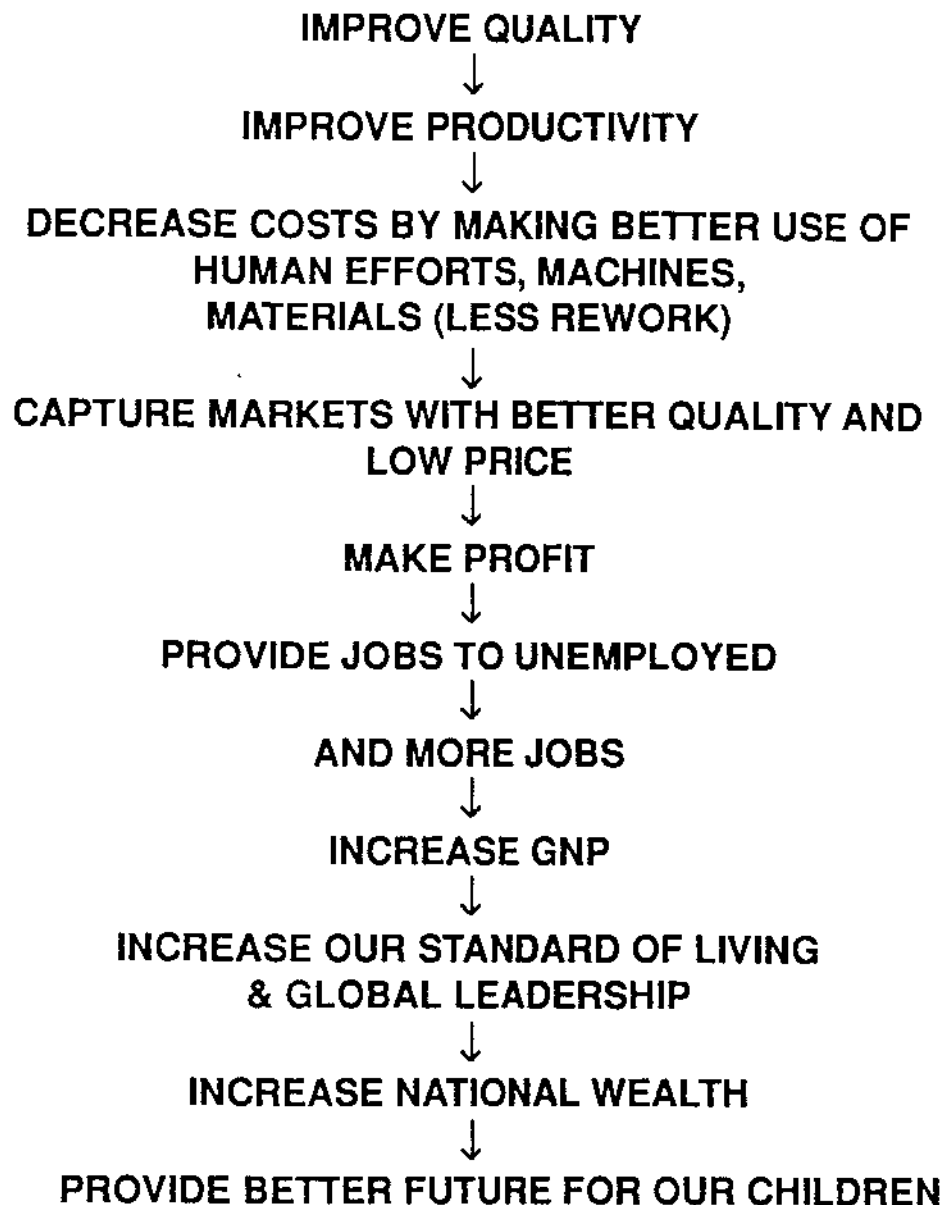
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# WHY QUALITY?

## CHAIN REACTION

(Proposed by Dr. W. Edwards Deming)  
(By Focusing on and Reducing Defects)



(Flow chart by Madhav Sinha)



## EVALUATION FORM

Please circle the appropriate responses.

	Poor	Fair	Satisfactory	Good	Excellent
1. The Topic was:	1	2	3	4	5
2. The Speaker was:	1	2	3	4	5
3. Quality of presentation material was:	1	2	3	4	5
4. Performance of audio-visual equipment:	1	2	3	4	5
5. Time of event was:	1	2	3	4	5
6. Length of event was:	1	2	3	4	5
7. Location was:	1	2	3	4	5
8. Catering was:	1	2	3	4	5
9. Cost of event was:	1	2	3	4	5
10. Educational value: (Did it meet your needs?)	1	2	3	4	5

SUGGESTIONS FOR FUTURE EVENTS OR OTHER COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

EVENT: \_\_\_\_\_ SPEAKER: \_\_\_\_\_

NAME: \_\_\_\_\_ COMPANY: \_\_\_\_\_

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