This booklet is one of six texts from a workplace literacy curriculum designed to assist learners in facing the increased demands of the workplace. The booklet contains seven sections that cover the following topics: (1) meaning of total quality management (TQM); (2) the customer; (3) the organization's culture; (4) comparison of management styles; (5) Dr. W. Edwards Deming's 14 points of TQM; (6) Deming's deadly sins; and (7) TQM awards. (KC)
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THE MEANING OF TOTAL QUALITY MANAGEMENT

Total quality management has many definitions. It means different things to different people. Joseph R. Jablonski, in his book entitled Implementing TQM, defines TQM in the following way:

"a cooperative form of doing business that relies on the talents and abilities of employees and managers to continually improve quality and productivity using teams."

There are some good points brought out in this definition. First of all, it states that both managers and employees must cooperate in using their talents and abilities to improve quality. No one person or department has the total picture or solution to quality problems. The cooperative effort and total commitment of EVERYONE in the organization is necessary for TQM to work.

The definition also states that quality improvement is a continuous process. How long does TQM last? The answer is, "forever".

Jablonski uses the word "teams" in his definition. Teams, or quality circles as they are sometimes called, are the structures in which employees and managers gather to share information, study data and solve quality problems.

In another book entitled Total Quality Management by Sashkin and Kiser, the authors believe there are three important C's necessary to define TQM. They are: Counting, Customer, and Culture.
COUNTING - The word refers to the tool, techniques, and training required to understand, analyze, and solve problems.

CUSTOMER - Customer satisfaction has to be the central goal and driving force of everyone in the organization.

CULTURE - Culture refers to the values and beliefs that identify and support quality assurance and total quality management.

Using these three factors, Sashkin and Kiser define total quality management as "the use of statistical tools, techniques and training to improve customer satisfaction continually by encouraging and supporting the commitment of all organizational members toward that end."

Dr. W. Edwards Deming, one of the founders of quality assurance and total quality management, claims there are three important elements necessary to create a climate of excellence. They are:

1. THE TOOLS AND TECHNIQUES
2. THE CUSTOMER
3. THE ORGANIZATION'S CULTURE

The first element, tools and techniques, are explained in great depth in the booklet Quality Assurance. The main concerns of this booklet are the customer and organization's culture. However, there are a few points to mention about tools and techniques and their relationship to total quality management.
Deming believed that quality performance was more than just training people on how to use statistical tools. Although important, necessary, and most helpful, they alone cannot guarantee quality. Deming learned this fact before and during World War II, when helping the United States to develop quality war products.

After the war, managers in U.S. industries lost interest in quality performance. They were more interested in making a profit because there was such a great demand for consumer goods at that time.

Japan, however, recognized the need to change their poor production methods if they were to survive and compete in the world economy. Japan also recognized the values in Deming's philosophy. They invited him to Japan to help improve their quality standards and performances.

Deming did not want to happen in Japan what happened in the United States. Although Deming continued to teach the use of statistical tools in Japan, he concentrated more and more on what MANAGEMENT had to do to create a climate, an environment, or a "culture" for quality assurance to succeed. This experience gave birth to what is known as total quality management.

Undoubtedly the most important factor of total quality management that Deming introduced in Japan was:

IT IS ABSOLUTELY NECESSARY FOR MANAGEMENT TO SUPPORT AND BECOME LEADERS IN THE QUALITY ASSURANCE PROCESS.
History has shown how successful Japan was in following Deming's philosophy within their businesses and industries. In more recent years, the United States, as well as many other countries around the world, has returned to total quality management principles.

THE CUSTOMER

One of the most important components of Deming’s philosophy is that customers come first. Their concerns are the top priority. Customers are the ones who determine if a product or service is fit for use. They are the ones who have the best ideas and feedback about what quality is. Most people think that profit is the bottom line of a business. Quality for the customer is the bottom line. When that happens, other things like profit follow in its proper place.

QUALITY IS WHAT THE CUSTOMER SAYS IT IS.

Some customers complain when they don't like a product or service. Complaints and other feedback give the industry a clue that something is wrong and needs to be changed.

However, some customers don't complain. They quietly go to other companies for products or services. Customers have to feel confident that a product or service meets or exceeds their needs AT ALL TIMES. Without satisfied customers, there is no business.
WHO ARE THE CUSTOMERS?

Customers are the ones who receive the goods or the services. Customers are past, present and future. Customers are also internal and external.

PAST CUSTOMERS - Ones the organization wishes to REGAIN.

PRESENT CUSTOMERS - Ones who purchase products or services NOW.

FUTURE CUSTOMERS - Ones the company hopes to GAIN.

INTERNAL CUSTOMERS - These are employees who receive or pass on work to other employees in the same organization. They would also be the people within the organization who receive the services of employees, as in the case of residents in a nursing home. Sometimes it is harder to satisfy internal customers because they are seen again and again throughout the day.

EXTERNAL CUSTOMERS - These are the people who financially support the organization by purchasing and using the products or services. The external customer is the consumer. External customers are also those outside the organization who sell the product or service for the manufacturer.
For products and services to satisfy customers, past, present and future, they must be improved continually. Once quality is achieved, it must be sustained and improved again and again and again. Customers’ needs change constantly, or supplies become scarce with greater use, or competition increases with other companies supplying similar products or services. There is a lot of competition in the world market today. The companies that survive are the ones whose main concern is customer satisfaction above all else.

TQM ONLY OPERATES WHEN THE VALUE OF CUSTOMER SATISFACTION IS THE MOST IMPORTANT PART OF THE ORGANIZATION'S CULTURE.
THE ORGANIZATION’S CULTURE

Statistical tools and customer expectations are easier to understand than culture. Culture is a set of beliefs, values and vision that are shared by all members of the organization. They define human behavior and model patterns and actions over long periods of time. In a sense, they tell what is the right or wrong way of doing business.

What are some of the values and beliefs that go into developing and creating a TQM culture? A few are mentioned below.

1. Information is used to improve quality and not to control customers.

Most people in the workplace today grew up with the idea that there would be fewer problems in the organization, company, or business if workers performed better on the job. At one time, the individual worker was blamed for most of the problems that occurred. Consequently, if the problem needed correction, change the worker.

Both Dr. Joseph M. Juran and Dr. W. Edwards Deming pointed out that workers control less than 15% of any problems and that 85% of failures come from faulty management systems. In other words, the system causes 85% of mistakes and errors and the worker causes 15%. Obviously, the cause of problems falls heavier on the side of management systems rather than the individual.
To correct problems or make improvements, Juran and Deming believed that management should look at the individual parts or steps within the process itself. This theory is known as the 85/15 rule.

2. Employees should be consulted about the work for which they are responsible. Many managers fear the word "empowerment" because they feel it means giving up their own power and responsibility. Under total quality management, power and responsibility are not lost but shared.

   Empowerment is a different way of working together. Empowerment is finding the right balance between individual freedom and management control. Empowerment is doing or acting responsibly, providing the action is within the employee's work area and doesn’t involve another’s territory. If it does, all the persons involved should have a say in the matter.

   An empowered culture is a workplace in which teams of people work together to get the job done right.
3. **Reward good results.**

Rewards are a real way of saying, "quality has value." Under TQM management, rewards are given on all organizational levels: to individuals, groups, or teams.

Deming warns people to consider carefully how and why individual rewards are given. In some cases, individual recognition encourages competition among employees. Instead of working for the company, employees compete with each other to look good. Individual rewards also encourage the use of data to judge an employee's work or compare it with others.

One way to avoid this trap is to present rewards based on skills improvement, the development of new skills, or contributions to the organizational quality performance techniques.

An example of group level recognition is sharing any profits resulting from quality improvement methods generated by the group.

4. **The basis for working together is cooperation.**

As mentioned in the previous paragraphs, the main reason for working together is co-operation, not competition. An employee's concern must be the good of the entire organization and not the attitude that every person is out for oneself.

One way to build a cooperative spirit in the organization is to design group tasks in which employees work together in self-managing teams. The advantage of self-managing teams is that it shifts control over the worker to relying on knowledge and loyalty.

9.
Ideas about team building are further developed in the booklet *Team Building Concepts.*

5. Employees are more apt to suggest quality improvements if they feel secure in their jobs.

Fear of making mistakes or losing one's job lowers employees' morale. If jobs are at risk, employees aren't interested in finding new ways to cut costs. Managers at all levels should do everything possible to help employees succeed.

**THE BEST WAY TO IMPROVE QUALITY AND CUT COSTS AT THE SAME TIME IS TO FOCUS ON QUALITY PERFORMANCE.**

6. The organizational climate or environment is one of fairness.

Fairness is one of the most important parts of TQM culture. It is impossible for workers to improve or cooperate if they are not treated fairly. Here are some practical ways for businesses to operate fairly.

A. TRUST
   Do what you say you will do. Share useful information.

B. TRUTHFUL
   Avoid lying or giving false impressions. Be clear on what is expected from employees.

C. CARING
   Show concern for others. Keep confidences. Avoid favorites or special treatment of one employer over another.
D. EMPOWER
Invite employees to share in the decisions that affect their work.

E. RESPECT
Recognize employees' strengths, gifts, and contributions to the good of the organization.

A positive and caring environment lessens medical costs, sickness, tardiness or absenteeism, legal fees, accidents, and compensation costs. These costs are some of Deming's "deadly sins" that are explained later in this booklet.

7. Salaries should be fair.

Some economists believe that executives should earn no more than 20 times the pay of the lowest-paid worker. In most large cooperations, executives are paid 50 to 100 times more. This practice makes fairness more difficult to achieve. Managers should try to make some adjustment so that there isn't such a large gap between the salaries of executives and other employees.

8. Ownership in the organization is shared.

Employees have a greater commitment to the organization if they have claim to some amount of ownership. An example of this is to make company stocks available to employees. Some businesses are completely owned by the employees where they all share in the profits.

In the examples above, ownership is not always possible. The important thing to remember is that employees must feel a sense of ownership over their work and actions.
9. Improving quality is a continuous process.

Deming’s ideas about continuous improvement are explained in his four-part cycle called PDCA: PLAN - DO - CHECK - ACT.

PDCA means to PLAN carefully what must be done, DO or carry out that plan, CHECK the results of the plan, and ACT with appropriate action. Analyze the results of the final action, whether good or bad. Cycles go on and on with quality ever increasing. Even good processes can be improved. Study Deming’s improvement cycle chart below.
10. Train and educate EVERYONE in total quality management.

From what has been written so far, it is clear to see that TQM requires a new way of management, a new way of thinking that requires CHANGE. Change is not easy or comfortable. Employees or managers who have worked in a certain way for years are VERY reluctant to change. They fear what they don’t know. The best way to drive out fear is to educate and train everyone so the transition can be made smoothly. As Winston Churchill said:

THERE IS NOTHING WRONG WITH CHANGE

IF IT IS IN THE RIGHT DIRECTION.

TO IMPROVE IS TO CHANGE,

SO TO BE PERFECT

IS TO HAVE CHANGED OFTEN.
COMPARISON OF MANAGEMENT STYLES

One way to understand the differences in management styles is to compare TQM with the older, more traditional method of management.

<table>
<thead>
<tr>
<th>TRADITIONAL MANAGEMENT</th>
<th>TQM MANAGEMENT</th>
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<tbody>
<tr>
<td>focus on product</td>
<td>focus on customer satisfaction</td>
</tr>
<tr>
<td>encourage competition, blame, dishonesty, and fear</td>
<td>encourage work for the good of the whole</td>
</tr>
<tr>
<td>base goals on guesswork and assumptions</td>
<td>base goals on scientific data</td>
</tr>
<tr>
<td>interest on meeting quotas</td>
<td>interest on quality improvement</td>
</tr>
<tr>
<td>errors determined by inspection</td>
<td>errors prevented before they occur</td>
</tr>
<tr>
<td>top managers educated</td>
<td>education and training is for all</td>
</tr>
<tr>
<td>short-term thinking</td>
<td>long-term thinking</td>
</tr>
<tr>
<td>Quality checked after product is made</td>
<td>Product meets established quality standards</td>
</tr>
<tr>
<td>managers and employees work independently</td>
<td>managers and employees cooperate as quality teams</td>
</tr>
<tr>
<td>workers fear loss of job if quotas aren't met</td>
<td>managers and employees work together to meet quality standards</td>
</tr>
<tr>
<td>people considered money burdens</td>
<td>people considered assets</td>
</tr>
<tr>
<td>95% quality is great</td>
<td>only 100% quality will do</td>
</tr>
<tr>
<td>costs money and time</td>
<td>saves money and time</td>
</tr>
<tr>
<td>customers are buyers</td>
<td>customers are involved in product planning</td>
</tr>
</tbody>
</table>

**TQM MAKES YOU STOP AND ANALYZE WHAT YOU ARE DOING.**
DEMING'S 14 POINTS - AN EXPLANATION

Throughout this booklet, many references were made to Dr. W. Edwards Deming who is called the father of the new economic era. His philosophy is summarized in his famous "14 Points". Each of these points is explained below.

1. **CREATE CONSTANCY OF PURPOSE FOR IMPROVEMENT OF PRODUCT AND SERVICE**

   This first point states that the MAIN PURPOSE of a business is to improve products and services continually. Staying in business, making a profit, providing jobs, and increasing competition are the results or by-products of placing quality performance first.

2. **ADOPT A NEW PHILOSOPHY**

   Adopting a new philosophy is the opposite of "business as usual." Our society is in a new economic age that requires change and a new way of thinking. This second goal challenges businesses to recognize, acknowledge, and accept the fact that there is another and better way of doing things.

3. **CEASE DEPENDENCE ON INSPECTION TO ACHIEVE QUALITY**

   Inspection means that quality is added to a product or service by correcting mistakes after the fact. Mass inspection makes it appear that workers are paid to make errors. Quality must be built into the product or service from the start. Workers need to feel pride in their work.

4. **END THE PRACTICE OF AWARDING BUSINESS ON PRICE ALONE**

   To place profit first is to put the cart before the horse. Price has meaning only in its relationship to quality. Quality is a greater value than profit.
5. **IMPROVE CONSTANTLY AND FOREVER EVERY PROCESS FOR PLANNING, PRODUCTION AND SERVICE**

Discovering ways to improve quality and cut costs are never-ending responsibilities.

6. **INSTITUTE TRAINING AND RETRAINING ON THE JOB**

Deming means two types of training in this statement. The first is to train managers and workers on how to use Statistical Process Control (SPC) to improve quality. (See booklet entitled *Quality Assurance.*) The second is to train workers on how to do the jobs for which they are responsible.

7. **INSTITUTE LEADERSHIP**

In TQM, leadership must exist on all levels of the organization. A leader is one who shows the way. On the lower level, a leader assists workers and provides training when necessary. On the management level, a leader is one who is committed to creating an organizational culture for TQM to succeed.

8. **DRIVE OUT FEAR**

This is one of Deming's most important points. Quality performance is possible only when there is an environment (culture) of trust, openness, and honesty. When people are afraid, they fail to speak up, identify problems, or ask questions.

9. **BREAK DOWN BARRIERS BETWEEN STAFF AREAS**

All staff and department members have to work as a team in order to achieve common goals. Compete with other companies and not one another.
10. **ELIMINATE SLOGANS, EXHORTATIONS, AND TARGETS FOR THE WORK FORCE**

Most problems come from the management system and are beyond the power and control of the workforce to correct. What employees need are the support of management and the tools to improve quality, not slogans, pep talks, and empty words that have no meaning.

11. **ELIMINATE NUMERICAL QUOTAS**

Focus on quality not quantity produced. Numbers encourage dishonesty. People are more apt to write down any number to show quotas are reached. Replace management by objectives and numerical goals with leadership.

12. **REMOVE BARRIERS TO PRIDE OF WORKMANSHIP**

Start with the positive attitude that most employees want to do quality work. People do not respond well when they feel judged or criticized. Rather than concentrate on merit or rating systems, provide workers with quality materials, equipment, and training to help them feel pride in their work.

13. **INSTITUTE A VIGOROUS PROGRAM OF EDUCATION AND SELF-IMPROVEMENT**

Education includes more than learning how to use quality assurance tools. Learning new ways of working together as a team and new behaviors to support a TQM culture are equally important.

14. **PUT EVERYONE TO WORK TO ACCOMPLISH THIS TRANSFORMATION**

Everyone in the organization is responsible for implementing quality. Management designs the plan and assists workers in putting the plan into action. It is everyone’s job to create a TQM culture.

On the following page is a summary list of Deming’s 14 Points.
DEMING’S 14 POINTS

1. CREATE CONSTANCY OF PURPOSE FOR IMPROVEMENT OF PRODUCT AND SERVICE.

2. ADOPT A NEW PHILOSOPHY.

3. CEASE DEPENDENCE ON INSPECTION TO ACHIEVE QUALITY.

4. END THE PRACTICE OF AWARDING BUSINESS ON PRICE ALONE.

5. IMPROVE CONSTANTLY AND FOREVER EVERY PROCESS FOR PLANNING, PRODUCTION AND SERVICE.

6. INSTITUTE TRAINING AND RETRAINING ON THE JOB.

7. INSTITUTE LEADERSHIP.

8. DRIVE OUT FEAR.

9. BREAK DOWN BARRIERS BETWEEN STAFF AREAS.

10. ELIMINATE SLOGANS, EXHORTATIONS, AND TARGETS FOR THE WORK FORCE.

11. ELIMINATE NUMERICAL QUOTAS.

12. REMOVE BARRIERS TO PRIDE OF WORKMANSHIP.

13. INSTITUTE A VIGOROUS PROGRAM OF EDUCATION AND SELF-IMPROVEMENT.

14. PUT EVERYONE TO WORK TO ACCOMPLISH THIS TRANSFORMATION.

19.
DEMING'S SEVEN DEADLY SINS - AN EXPLANATION

Deming believed his 14 points were necessary for TQM. He also knew implementing them was no easy task. There were dangers that interfered with building a strong TQM culture. He called these dangers the "seven deadly sins." They are explained below.

1. LACK OF PURPOSE

Survival is the main concern instead of planning for new products or services needed in the future.

2. EMPHASIS ON SHORT-TERM PROFITS

This is the opposite of constancy of purpose by trying to make things look good. This sin is fed by a desire to raise dividends, profits, and company stocks.

3. MANAGEMENT BY OBJECTIVES/EVALUATION

Review systems, merit rating, etc. encourage competition, negative criticism, employee control and looking out for oneself rather than the good of the whole facility.

4. MOBILITY OF MANAGEMENT

Managers who constantly job hunt lessen their commitment to the organization. They do not develop roots.
5. **USE OF VISIBLE FIGURES ONLY FOR MANAGEMENT**

Data and figures are necessary but not sufficient. It is important to ask the right questions: why or for what purpose are these data necessary? Ask what information is necessary that is unknown or hidden at this time?

6. **EXCESSIVE MEDICAL COSTS**

Medical care at best is very expensive.

7. **EXCESSIVE COST OF LIABILITY**

An example of this would be costs for lawyer’s fees.

An explanation of these last two points are explained in the seminar on Safety.

**DEMING’S CHAIN REACTION**

Deming maintained that improving the production process made it work better. This lessened mistakes, defects, breakdowns, delays, inefficiencies and costs. It saves the company tons of money. Saving money lowers consumer costs. Lower costs create a greater demand for the goods or services. The result of this domino effect or chain reaction means higher profits and more secure jobs. A diagram of Deming’s Chain Reaction is included in the pages that follow.
DEMING'S CHAIN REACTION

IMPROVE QUALITY OF PRODUCT OR SERVICES

LOWERS MANUFACTURING COSTS

PRODUCTION IMPROVES WASTES/INEFFICIENCY LESSEN

CONSUMER PRICES GO DOWN

MARKET FOR PRODUCT OR SERVICES INCREASES

COMPANY/ORGANIZATION STAYS IN BUSINESS AND PROVIDES JOBS

GREATER RETURN ON INVESTMENT

PROFIT
TOTAL QUALITY MANAGEMENT AWARDS
ISO 9000

In 1987, the International Standards Organization (ISO) developed quality standards of excellence that would be recognized and accepted throughout the world. Over 35 countries worldwide use these standards. A few of these countries include many European nations, Australia, New Zealand, Canada, China, India, South Africa, and the United States.

Meeting ISO 9000 standards certifies a company’s ability to sell directly to other countries without additional inspection. Consequently, firms that meet the ISO 9000 standards have a competitive edge in the European market over those who don’t. To apply for certification, a firm invites accredited ISO auditors to visit their facility to determine if it meets ISO standards.

There are broad categories in the ISO 9000 series.

ISO 9001  Engineering/Construction-Type Firms and Manufacturers
ISO 9002  Chemical and Process Industries
ISO 9003  Small Shops or Divisions that Inspect and Test Products
ISO 9004  Quality Management and Quality Systems Guidelines

THE DEMING PRIZE

Japanese companies started a yearly competitive prize that rewards any business or organization which applies effectively quality assurance and total quality management principles. Japan is a country that highly respects teachers so they named the prize after their teacher, Dr. W. Edwards Deming.

23.
THE BALDRIGE AWARD

The Malcolm Baldrige National Quality Awards began in 1987 by an act of the United States Congress. Two awards are given yearly in each of three categories:

- Manufacturing
- Service
- Small Business

The disadvantage to seeking the Baldrige Award is that it is an expensive and involved procedure. Seven general areas are closely examined and awarded a point value.

1. Leadership 90 points
2. Information and Analysis 80
3. Strategic Quality Planning 60
4. Human Resource Development and Management 150
5. Management of Process Quality 140
6. Quality and Operational Results 180
7. Customer Focus and Satisfaction 300

These seven areas are further divided into smaller items. If the efforts to achieve the Baldrige Award is an active, continuous commitment to total quality management, the payback is well worth the expense.
Students attending MCDI have the privilege of participating in six seminars that prepare them for employment in a unique way. Different from most educational/technical training institutions, MCDI familiarizes its graduates with the changes taking place in businesses, organizations, and service oriented facilities. The change is moving from the older, traditional ways of doing business to quality assurance and total quality management. MCDI believes that students with a basic understanding of these procedures and systems have a greater opportunity for employment and job advancement. The six seminars are:

SELF ESTEEM AND MOTIVATION
SAFETY
PROBLEM SOLVING
TEAM BUILDING CONCEPTS
QUALITY ASSURANCE
TOTAL QUALITY MANAGEMENT

Although these seminars are taken individually, they are closely related to each other and make a unified whole. The seminar on self esteem and motivation address the issues of self confidence and the convictions needed to succeed and advance in employment status. Safety awareness within the work environment shows concern for oneself and others. Good safety practices and knowledge also decreases both employer and employee health, liability, and workers’ compensation costs. Employees who can solve problems and work cooperatively with others in teams are a real asset to employers striving to build a quality assurance culture. This is the direction in which many employers have invested their time and money and it certainly will continue as the major priority for business and industry throughout the community.
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