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Total quality management: A handbook for business leaders

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TOTAL QUALITY MANAGEMENT:

A HANDBOOK FOR BUSINESS LEADERS

A Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Education: Vocational Education

---

by

David Houston Parish, Jr.

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Approved by:

_____   2/18/97
Allen D. Truell, Ph.D., First Reader   Date

_____
Ronald K. Pendleton, Ph.D., Second Reader

ABSTRACT

The purpose of this project was to develop an easy to use handbook for manager and leader training on TQM being used by businesses in the United States. TQM is being called the most significant shift in American management thought and practice since the Industrial Revolution. As many managers are learning, TQM presents radical new challenges to traditional management. It demands a dramatic rethinking about how decisions are made, how work is evaluated, and how communication is conducted in the workplace. Which skills and abilities must managers develop to ensure success of TQM and refocus the organization's resources and energies on serving the needs of its customers? The primary focus of this project is a Quality Review process, designed to establish a cause-and-effect relationship between quality and immediate and long-term business objectives, all designed to facilitate the ease of implementation of TQM within any organizational structure.

ACKNOWLEDGEMENTS

I want to thank Dr. Allen Truell for his patience and direction throughout the undertaking of this project. A special thanks to my wife, Barbara, for her understanding and encouragement.

TABLE OF CONTENTS

CHAPTER ONE

Background

Introduction

The contents of Chapter one presents an overview of the project. The context of the problem is discussed followed by the purpose and significance of the project. Next, the limitations and delimitations that apply to this project are reviewed. Finally, a definition of terms is presented.

Context of the Problem

Is more than one philosophy of Total Quality Management (TQM) in business considered to be effective? How do managers perceive the effectiveness of TQM used in their businesses? What tools do managers need to implement and maintain an efficient and economical quality program? What powerful lessons in quality are being learned from being a part of a global economy and marketplace? Business organizations face more intense, dynamic competition than ever before. This level of competition has made it so world-class quality service is no longer an option--it is both the price of entry into the global marketplace and the only way to ensure prosperity.

Research has begun to isolate factors that make TQM effective (Senge, 1990, & Walton, 1986). These studies have indicated that quality objectives are achieved and enhanced when a combination of philosophical techniques was put to use. The combination of these philosophies and techniques that produce effective TQM makes implementation efficient and economical to maintain.

Purpose of the Project

The purpose of the project was to develop a handbook to assist business managers in planning instructional programs for TQM. The various TQM instructional models are presented.

Significance of the Project

Clearly, an abundance of tools exist to implement quality improvement within an organization, however very few corporate managers have the background, knowledge or skills necessary to provide the training. The focus of this project was to fill the gap by developing a TQM instructional program for business leaders.

Limitations and Delimitations

A number of limitations and Delimitations surfaced during the development of this project. These limitations and Delimitations are presented in the next section.

Limitations. The following limitations apply to this project:

1. The materials currently available for planning TQM instruction in business limit the scope of this project.

2. The resources available to managers interested in implementing TQM further limit the project.

Delimitations. The following Delimitations apply to this project:

1. The project is designed specifically for managers in business.

2. The project is delimited to the most frequently employed strategies for assisting business leaders.

Definition of Terms

The following terms are defined as they apply to this project:

Strategy--A broad course of action, chosen from a number of alternatives, to accomplish a stated goals.

Suppliers--Individuals, teams, or organizations that provide input to a work group or customer. Suppliers are internal or external.

Timeliness--The promptness with which quality products and services are delivered relative to the customer's requirements.

Total Quality Management (TQM)--Co-operative form of operating an

organization in away that relies on the talents of both labor and management

continually improves quality and productivity using teams and facts in decision

making.

Variable--A data term to identify values within some range that appear with a certain

frequency or pattern.

Organization of the Project

This project is divided into four chapters. Chapter one provides an introduction to
the context of the problem, purpose of the project, significance of the project, limitations
and delimitations, and definition of terms. Chapter Two consists of a review of the
literature. Chapter Three outlines the population to be served and the project design.
Chapter Four presents the conclusions and recommendations gleamed from the project.
The project and references follow Chapter Four.

CHAPTER TWO

Review of the Literature

Introduction

Chapter Two consists of a discussion of the relevant literature. Specifically, the basic ideas behind TQM, quality, meeting the customer's requirements, continuous improvement the guiding principle, and teams and groups are the primary vehicles for planning and problem solving.

The Basic Ideas Behind TQM

Business organizations face more intense, dynamic competition than ever before. This level of competition has made it that world-class quality and service was no longer an option--it is both the price of entry into the marketplace and the only way to stay alive once you are in it (Harrington, 1991). Global competition teaches that quality cannot be faked or hurried to market. The culture of trust and empowerment that produces superb products and services in a time frame for the market cannot be faked. In a sense, increasing global competition has taught the same lesson nature teaches on the farm--that you reap what you sow. The real insight was that natural laws or principles govern all of life (Schmidt, 1992).

A study conducted by Kayser (1990) showed that many people, when asked to describe their organization, would begin to draw an organizational chart or talk about divisions and departments, lines of authority, bosses and subordinates. In total quality managed organizations, people were more likely to pay attention to who supplies them with what they needed to do their job and the customer who they produced. For example a company that had a fleet of trucks, truck drivers were the customers of mechanics who service the trucks. To improve service to the drivers, the mechanics interviewed them. The mechanics were the customers of the parts and supplies department, who routinely

ask them about their expectations for timely delivery of the right parts. For each transaction there was a supplier and a customer, who may be internal or external. A system of interdependent relationships who effectiveness depended on how well suppliers understand and meet their customer requirements (Kayser, 1990). According to Covey (1994), author of First Things First, when the organization was thought of in this way-- when everyone became concerned about meeting their customer requirements-many things change. Realistic communication flowed more freely because internal customers had to let their suppliers know what they needed in order to do their jobs.

When the Malcolm Baldridge National Quality Award examiners visited the Cadillac Motor Car Division plant in Detroit, Michigan, they asked a worker who was polishing a bumper, "Who is your customer?" The worker replied, "Do you mean my internal or external customer?" The examiner said, "Tell us about both," to which the worker responded, "That fellow over there is my internal customer, responsible for cleaning the bumper and putting on the chrome. My external customer is the person who buys the car" (Grayson & O'Dell, 1990).

Quality--Meeting the Customer's Requirements

Researchers have concluded that customers, not engineers, not designers or accountants, set the ultimate criteria for quality (Likert, 1967). Customers are never regarded as people to whom the product is presented in a "take it or leave it" sprit. In some ways this was a supreme act of faith--to believe that if customers are satisfied, they will continue to patronize, and the organization will continue to survive. Success comes in delighting customers, they will bring others with them and the company will flourish; if their needs can be anticipated, the ultimate in quality will have been achieved. Everything the organization does was directed toward this objective (Senge, 1990).

Frederick W. Smith, CEO of Federal Express Corporation, put it this way in a

1991 speech to his colleagues: "Here's how it works out in our company, a courier's job is to make the courier's job easier, and the manager's job is to make the front-line manager's job easier and so on until you get to me...and my job is to do whatever it takes to help all of our people to do their best" (Finnigan & Schmidt, 1992).

Continuous Improvement the Guiding Principle

TQM managed organizations, the standard operating procedure was to keep doing better. As long as things are not perfect, there is room for improvement, new products can get to market faster, new adjustments in processes can cut down on time and cost, and the environment for work can be made more satisfying. David Kearns, as CEO of Xerox Corporation, told his colleagues, "Quality is a race without a finish line. A focus on quality has made Xerox a stronger company, but we know we'll never be as good as we can be, because we'll always try to be better. We are on a mission of continuos quality improvement" (Thurow, 1991, p. 23).

Teams and Groups Are Primary Vehicles for Planning and Problem Solving

Research indicated that, TQM organizations also recognize and reward teams, rather than just individuals. When a team solved a problem, every member of the team was recoginzed. When a group achieved some goal, everyone celebrated. There was little doubt that the exhilaration that came from being part of a successful team was different from the satisfaction that came from individual achievement. Setbacks or disappointments were also easier to manage as a member of a team was. A final advantage of the team emphasis was a reduction of individual rivalry and distrust (Naisbit, 1985).

According to a study conducted by McGregor (1960), organizations in the past sought stability and dependability; organizations in the 1990's must be responsive and quick. Almost every major reorganization today resulted in fewer levels of management.

There is not time to send messages up through many layers of a hierarchy to get a decision. Customers want responses right now! Companies that get their product to the marketplace first have the best chance to capture the market. Flexibility was also important to the modern organization. Departmental lines must be overcome or eliminated to solve problems.

Surveys conducted show that this was one of the most difficult aspects of TQM to sell to U.S. citizens, "Continual improvement" does not come easily or naturally. Workers prefer quick, dramatic changes followed by periods of calm. Employees respond well to crises but when things are operating smoothly, the guideline was "Do not rock the boat. If our customers are still buying and not complaining, why should we worry" (Walton, 1990, p. 44)?

Researchers recommend that Total Quality managers have to turn this attitude around. Managers have to sustain their commitment to day in, day out effort to keep raising the bar and not settle for anything less. Where organizations have succeeded in doing so places like Motorola Xerox, and Federal Express--the results astound even the more optimistic supporters. Motorola was striving to make products that have only 3.4 defects per million (Grayson, 1988).

Researchers ask the question, can workers be trusted to do the conscientious job on their own or must they be watched carefully, prodded with rewards, and threatened with punishment? Managers and psychologists have pondered this question for many years with mixed findings. Successful and unsuccessful managers have been on both sides of this issue and can "prove" their conflicting conclusions with dramatic examples. Douglas McGregor (1960) labelled the first group "Theory Y" managers, who assumed that workers are essentially trustworthy and that they want to do a good job and be creative. Theory X" managers, on the other hand, assumed that workers are essentially

lazy and uncreative and that they wanted to do as little as possible.

A comprehensive review of worker job satisfaction reveals that most managers in the United States are probably somewhere in between, believing that you can trust some workers but others have to be continually watched and motivated others with some combination of rewards and punishments or they will take advantage of the organization. Traditional managers are likely to lean toward Theory X behaviour, using managerial power limited by an increasing array of laws and by restrictions imposed by unions. An increasing array of laws puts limits on the exercise of that power, and where unions are involved to the limits are even stricter. In general, however, supervisors and managers are expected to be on the side of the organization, rather than on the side of the workers. Workers are to be directed, not "coddled" (McGregor, 1960).

McGregor (1960) stated that total quality managers operate from a strong set of Theory Y assumptions. TQM, managers viewed workers as key actors in the organization who will generally use good judgement and act conscientiously if they are given clear goals to achieve and are provided with the necessary skills, knowledge, tools and authority to do their job. The responsibility of the manager was to make sure that this happens. Managers became coaches to increase workers competence and facilitators to provide the conditions necessary to do their job. The principal job of the manager was to set realistic goals--usually with the assistance of the worker--and to establish ways to measure progress toward those goals.

Research has revealed that culture in the United States emphasize individual performance. The individual was lauded--praise was given the hero who risks a life to save a person in distress, the sheriff who stands up to the mob, the courageous entrepreneur who struggles to build a business. Therefore, it was natural for organizations to recognize outstanding individuals who made exceptional contributions to

the success of the organization (Juran, 1989).

Juran (1989) determined that TQM organizations focus more attention on team contributions. Although exceptional individuals were sometimes highlighted, more rewards and recognition go to teams. Since more of the solutions to problems and increases in productivity come form groups, it was natural to recognize and reward them, rather than individuals. In this setting, individuals were more likely to view their co-workers as colleagues and teammates, rather than as competitors.

According to Walton (1986), when workers are viewed as assets, training was seen as an investment. As competence of the workers grows, the worth of the company also increases. Efforts are made to keep the training budget intact during difficult times. Deming (1986), the most noted TQM guru in the U.S., devoted two of his famous fourteen points for quality management to improving the competence of the work force: "Institute training" and "Encourage education and self-improvement for everyone" (page 67.) The vice president for human resource development is one of the most influential executives in a TQM organization. Interesting to note that in Japanese firms, the officer in charge of human resource development outranks the chief financial officer.

Summary

The literature important to this project was presented in Chapter Two. The basic ideas behind TQM, quality—meeting the customer's requirements, continues improvement the guiding principles, and teams and groups are the primary vehicles for planning and problem solving were the topics presented.

CHAPTER THREE

Methodology

Introduction

Chapter Three details the steps used in developing the project. Specifically, the populations served are discussed. Next, the handbook development process including the resources used and content validation process is presented. Lastly, the handbook design is presented. The Chapter concludes with a summary.

Population Served

The handbook is intended for use by business executives who are seeking to improve the quality performance of their companies. This handbook is for all middle managers that have received memos from the powers that be, inciting them to establish and maintain quality while meeting production, inventory, revenue, and cost objectives. This handbook is for every frustrated employee who has ever been told that the new company policy is to do it right the first time.

Handbook Development

The next section of the project provides an overview of the handbook development process. Specifically, the resources employed in the handbook development process and the handbook design are reviewed.

Handbook Resources and Content Validation. This section describes the resources used to develop the handbook and the content validation process. The content for this handbook has been extracted from existing material. Specifically, the book Out of Crisis by Deming (1986). A panel of experts from business and industry validated the content and strategies outlined in this handbook.

The contents of this handbook were designed to be used as a guided discussion lesson plan. Each page is laid out to be utilized as an overhead slide presentation, with the

group leader acting as the facilitator for the group. The handbook is divided into four blocks, with each block taking approximately two hours to cover. The classes were designed for a maximum of 12 students per class with each class being subdivided into groups of four each to extrapolate data for discussion on the various subject matter, then re-presented to the 12 member groups as a whole.

Hand Book Design

Block I—The Quality Culture, was designed to give an introduction into TQM. Block I defined quality and gave each scholar the opportunity to give and discuss their individual definition of what quality was to them. Definitions and Myths of Quality, along with how Cultural Change, experiences, values and norms were discussed in Block I. Why culture is important, along with the Principles of Quality, end up the discussion presented in Block I.

In Block II, was found the actual format for the implementation of a quality program within any organization. Block II, begins with the establishing of a vision statement, the significance of a vision statement is to be well developed in the first portion of this discussion. Next the group will learn how to organize a group for improvement, elements of leader commitment and how to build and maintain a good productive team. Stages of group development, and developing an action plan, round out Block II. Block II also included the quality wheel exercise, along with supplemental readings to enhance the knowledge of the group and facilitator.

Block III, identify customers, suppliers, differentiates between internal and external customers and suppliers. Block III, explained customer/supplier alignment within the organization, by describing work as a process and the concept of process ownership, it also recognizes opportunities for improvement. And finally the four phases of continuous improvement is discussed.

improvement. Leader commitment, the value of effective team building in a organization, the purpose and characteristics of a vision statement, along with developing an action plan to strengthen the quality culture within an organization round out the discussion in Block IV.

Summary

The steps used in the development of this project were outlined. The population served was described, as was the curriculum development process. Lastly, steps in the implementation process were presented.

CHAPTER FOUR

Conclusions and Recommendations

Introduction

Included in Chapter Four is a presentation of the conclusions gleamed as a result of completing this project. Further, the recommendations extracted from this project are presented. Lastly, the Chapter concludes with a summary.

Conclusions

The conclusion extracted from this project follow.

1. The utilization of the handbook, if properly followed, will allow the managers and business leaders the opportunity to implement a TQM program within any size organizational structure.

2. The procedures that the handbook explains in a topical format gives each manager and business leaders the opportunity to implement a TQM program within any size organizational structure.

Recommendations

These recommendations resulting from this project follow:

1. It is recommended that business leaders, using this handbook as a guide, implement TQM to meet the needs of their associates and company.

2. It is recommended that business leaders provide managers with the special support needed to excel in TQM within their company.

3. It is recommended that as class discussions are held, those goals important to the manager are noted, and a comprehensive plan developed after each Block is completed.

4. It is recommended that managers consider the nature and degree of change required to meet all goals as they are selected and schedule them accordingly.
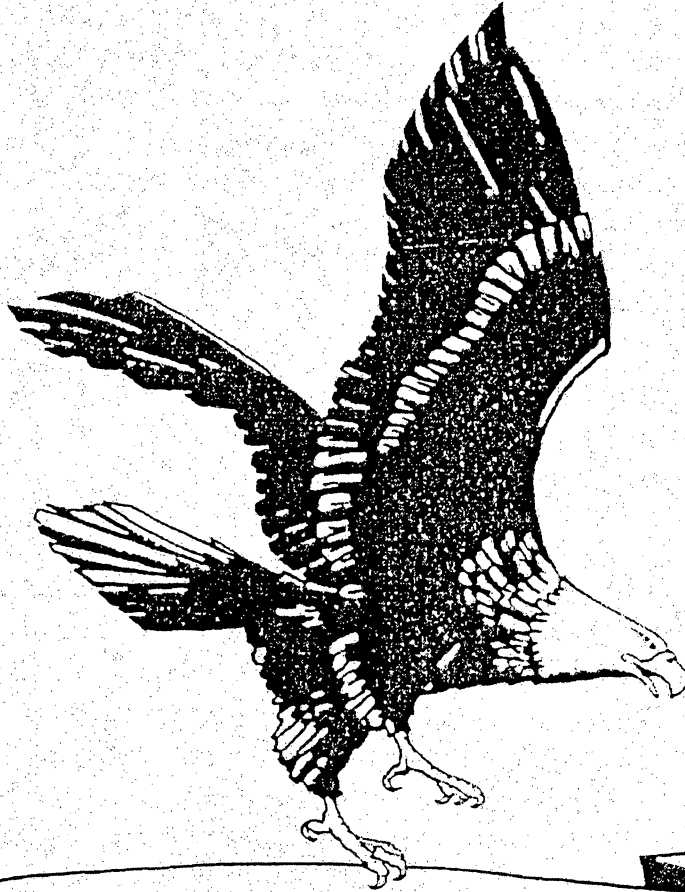
Summary

Chapter Four reviewed the conclusions derived from the project. Lastly, the recommendations extracted from this project were presented.

APPENDIX A

Total Quality Management Handbook

TOTAL QUALITY MANAGEMENT
HANDBOOK

LEADERS

... personally involved

Table of Contents

COURSE OBJECTIVE

The objective of this handbook is to provide managers in business with a
systematic approach for planning and implementing instructional programs for TQM.
The contents of this handbook were designed to be used in a guided discussion lesson
plan. Each page is laid out to be utilized as an overhead slide presentation, with the group
leader acting as the facilitator for the group. The handbook is divided into four blocks,
with each block taking approximately two hours to cover. The classes were designed for a
maximum of 12 students per class with each class being subdivided into groups of four
each to extrapolate data for discussion on the various subject matter, then represented to
the 12 member groups as a whole.

Block I—The Quality Culture, was designed to give an introduction into TQM.
Block I defined quality and gave each manager the opportunity to give and discuss their
individual definition of what quality was to them. Definitions and Myths of Quality,
along with how Cultural Change, experiences, values and norms were discussed in Block
I. Why culture is important, along with the Principles of Quality, end up the discussion
presented in Block I.

In Block II, was found the actual format for the implementation of a quality
program within any organization. Block II, begins with the establishing of a vision
statement, the significance of a vision statement is to be well developed in the first
portion of this discussion. Next the group will learn how to organize a group for
improvement, elements of a leader commitment and how to build and maintain a good
productive team, stages of group development, and developing an action plan, round out

Block II. Block II also included the quality wheel exercise, along with supplemental readings to enhance the knowledge of the group facilitator.

Block III, identify customers, suppliers, differentiates between internal and external customers and suppliers. Also the four phases of continuous improvement is discussed.

Block IV, Implementation, explained how a company could be organized for quality improvement. Leader commitment, the value of effective team building in a organization, the purpose and characteristics of a vision statement, along with developing an action plan to strengthen the quality culture within an organization round out the discussion in Block IV.

BLOCK I

THE QUALITY CULTURE

INTRODUCTION

One of the crucial ingredients in TQM is understanding the quality culture. All of us work within a culture—an organizational culture to which we attach our own ideas of reality. To understand the role and importance of quality in our lives, we have to first recognize the realities (perceived and real) of our own culture. That recognition provides the launch pad for determining where we want to go.

OBJECTIVES: Upon completion of this block, you should be able to:

- Explain what quality means to you.

- Explain the importance of cultural change.

- Identify pioneers and their ideas.

- Summarize basic quality principles.

WHAT IS QUALITY

The following questionnaire provides you the opportunity to think about your own perceptions of quality. Think about why you answered as you did while completing the questionnaire.

My idea of:

A quality car is _____

A quality vacation is _____

A quality job is _____

A quality boss is _____

A quality subordinate is _____

A quality service is _____

The person responsible for quality is _____

Quality in my job is _____

Quality in my organization is _____

---- NOTES ----

DEFINITIONS OF QUALITY

GSA   Meeting the customers needs the first time and every time.

HRL   Meeting the customers needs by continually improving the way we do business.

BOEING   Quality is proving our customers with products and services that consistently meet their needs and expectations.

ODI   Doing right things right.

DOD   Doing the right thing right the first time, always striving for improvement, and always satisfying the customer.

MYTHS OF QUALITY

- Quality means goodness, luxury, shininess, or weight.

- Quality is intangible and therefore not measurable.

- There is an "economics of quality" (e.g., "We can't afford It.").

- The workers originate quality problems.

- Quality originates in the quality department.

CULTURAL CHANGE

WHAT IS CULTURE?

"Stories, myths, and analogies convey the organization's shared values or culture. The stronger the culture and the more it is directed toward the marketplace, the less need for policy manuals, organization charts, procedures, and rules. The people way down the line know what they are supposed to do because of a handful of guiding values that are crystal clear."

Tom Peters

WHAT INFLUENCES CULTURE?

Experiences: Results of common day-to-day, on-the-job experiences of employees.

Values: Includes honesty, trust, openness, and loyalty in an organization.

Norms: Other elements include: survival needs, unwritten rules, informal organization, taboos, sacred cows, cliques, etc.

WHY IS CULTURE IMPORTANT?

Workers who feel relatively good about their jobs, their colleagues at work, and the organization overall are more likely to join a never-ending pursuit of total quality.

HISTORY

Many pioneers of quality tell us precisely what quality is and what quality is not. One thing is clear--quality is not new. Not surprisingly, an early pioneer of quality is an American by the name of W. Edwards Deming.

Deming in America	1940s
Deming goes to Japan	1950
Japanese adopt Deming's principles	1950s
Transformation of Japanese economy	
Japan emerges as a leader of quality	
American business rediscovers Deming	1980
US Government adopts quality	1988

COMPARING PHILOSOPHIES

DEMING - "A PREDICTABLE DEGREE OF UNIFORMITY AND DEPENDABILITY, AT LOW COST, AND SUITED TO MARKET."

- Emphasizes management's commitment.

- Participative management style.

- Continuous improvement.

- Reduce or control variation.

JURAN - "FITNESS FOR USE."

- Breakthrough in attitude.

- Project-By-project implementation.

- Most useful to middle manager.

- Journey from symptom to cause to remedy.

CROSBY - "CONFORMANCE TO REQUIREMENTS."

- Transform to quality culture.

- New management philosophy.

- Top-down approach.

- Zero defects.

PIONEERS OF QUALITY -- DEMING, JURAN, AND CROSBY – AGREE:

- Producing a quality product or service cost less because there is less waste.

- Preventing problems is better than detecting and correcting them.

- Statistical data should be used to measure quality.

- Managers need to take a leadership role in improving quality.

- Managers and employees need training in quality improvement.

- Organizations need to develop a quality management system.

YOUR ROLE IN CHANGING CULTURE

- Promote feedback on quality, teamwork, pride of workmanship, and barriers.

- Review organization policies/processes/structure.

- Promote "cultural basics":

- Get customer feedback.

- Base decisions on facts.

- Demonstrate constant improvement.

- Continue education and training.

- Set the tempo.

- Reward and recognize improvement initiatives and results.

- Provide funds/time/personnel/equipment.

PRINCIPLES OF QUALITY

We've discussed many concepts of quality, all of which are important. All
of them, however, can be boiled down to four key principles displayed on
the Quality Wheel. Notice the wheel is dependent on the strength and proper
maintenance of each spoke.
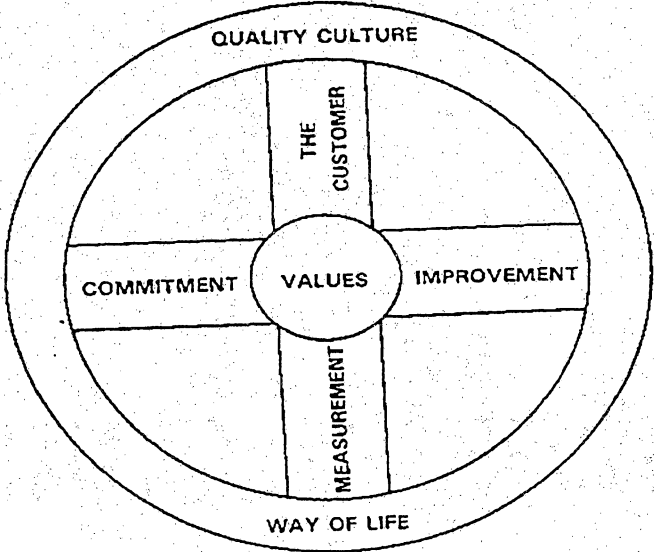
QUALITY WHEEL

Values
- Integrity
- Responsiveness
- Accountability
- Service

The Customer
- Customer satisfaction
- Who are our internal/external customers?
- Process improvement/unit quality teams
- Continuous improvement chain

Measurement
- Establish baselines
- Should be influenced by customer requirements
- Show improvement

Commitment
- Top-down led
- Participative
- Teamwork
- Accountability/responsibility
- Ownership
- Supporting infrastructure

Quality Culture
- Quality as a way of life
- Never ending
- We all have a "stake."
- Participative management style

WAY OF LIFE

Traditional	New
• Authoritarian	• Participative
• Fear of knowledge	• Open discussion
• No risk-taking	• Encourage change
• Fear of job loss	• Job security
• Status quo	• Continuous improvement
• Systems policies	• Policies that inspire people
• "Beat on" supplier	• Work with supplier
• Distant from customers	• Close to customers
• Specialist in statistics	• People trained in basic tools
• Work on result	• Focus on the process

SUMMARY

We've discussed perceptions and definitions of quality and the importance of the cultural change necessary for quality improvement. Japan is a clear example of cultural change in action because it places great value on the principles of quality. In a nutshell, quality involves change, and change can be frightening: but, change is crucial to improvement.

"IT SEEMS, IN FACT, AS THOUGH THE SECOND HALF OF
A MAN'S LIFE MADE UP OF NOTHING BUT THE HABITS
HE HAS ACCUMULATED DURING THE FIRST HALF.

Fyodor Dostoevsky

BLOCK II

WHY QUALITY

INTRODUCTION

Now that we've begun to formulate our own, more precise definitions of quality, let's look at why quality is so important. Your organization is probably a quality organization, so why do we need this course? Regardless of how well we're doing, we're always capable of improving our service. The Quality Wheel stresses improvement and the importance of constantly looking at our processes in order to become better. The consequences of neglecting improvement are severe, as the Tree concept will show.

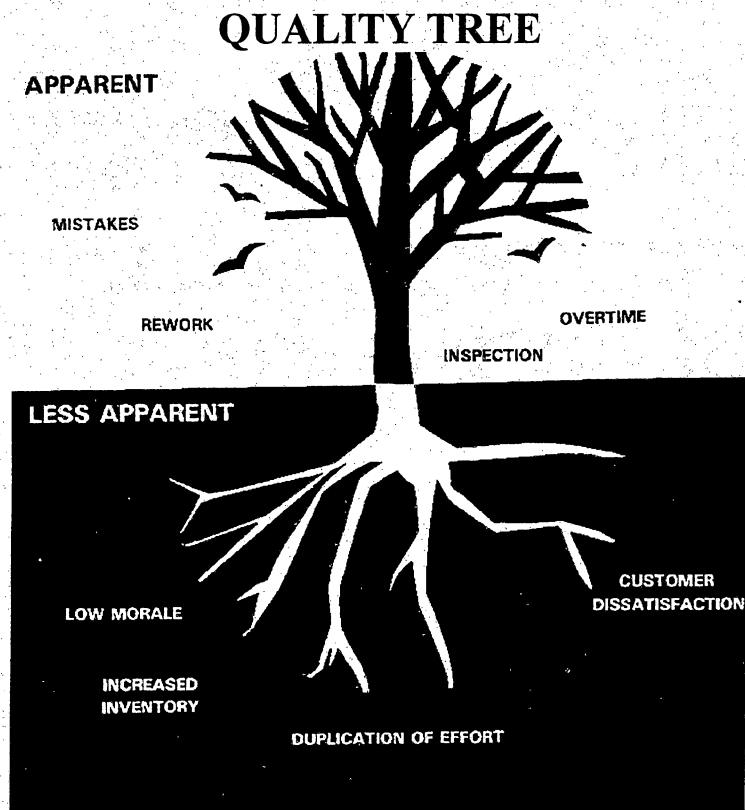OBJECTIVES: Upon completion of this block, you should be able to:

- Describe the cost associated with quality improvement.

- Summarize the benefits of quality.

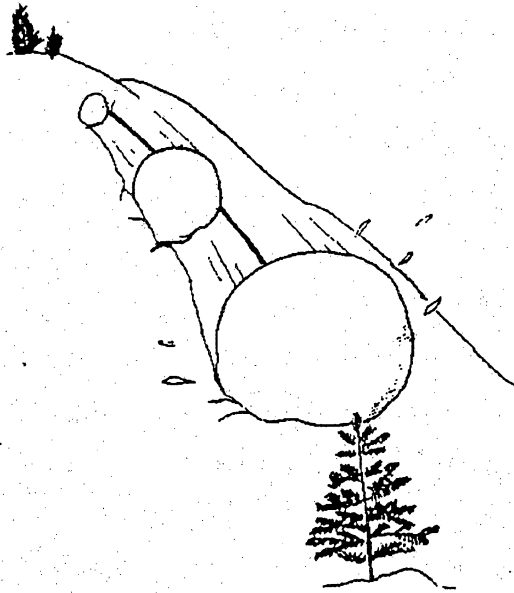- Explain the quality/productivity relationship.

COST OF QUALITY

The tree shows examples of cost, some, which are apparent, others which are not. Many of the costs can be reduced or eliminated. Some, like inspection, is necessary assuming we're inspecting the right things in the right amounts. Think about examples of costs in your own work setting. What is the impact of these costs?

An important aspect of the cost of quality is the investment cost necessary to improve quality. Training costs can be quite substantial, as can the cost associated with process improvement. Time and material considerations are crucial elements to consider in any quality improvement effort. Yet while the cost of quality can be high, the long-term cost of "business as usual" is even higher. And the long-term benefits of quality far exceed initial cost.

QUALITY TREE

APPARENT

MISTAKES

REWORK

OVERTIME

INSPECTION

LESS APPARENT

LOW MORALE

CUSTOMER
DISSATISFACTION

INCREASED
INVENTORY

DUPLICATION OF EFFORT

"SNOWBALL EFFECT"

Once we've identified the costs of quality, we're in a better position to see the benefits associated with quality. Many things come to mind: more effective, less costly service to our customers; less time spent on the same project; and happier customers. The "snowball effect" below demonstrates the earlier a problem is corrected the less expensive it will be to fix - in terms of time, money, and manpower.

QUALITY/PRODUCTIVITY RELATIONSHIP

The message behind the tree and the "snowball effect" is this: service to customers is dependent on our ability to do the right things the right way. Anything less, short changes those we serve as well as ourselves. Unfortunately, the very processes we often use prevent us from doing the right things the right way. The Quality Target on the next page clearly depicts the areas in which we often function, sometimes through no fault of our own. As leaders we have a responsibility to focus on consistently hitting the "bull's eye." Our target is to meet our customers' needs within our capabilities.

The crucial question is "How important are your activities to the service you provide your customers?" You'll probably find that some are but many are not. That is the challenge you face--how do you "identify and eliminate" unimportant activities and improve the essential ones? We'll discuss more about the "how" later. The important point is productivity may decrease if we regard all of our work activities as productive. If we don't believe all our activities as productive. If we don't believe all our activities are productive and value-added, then process improvement provides us the opportunity to increase overall productivity. This is a result of improving the vital few processes we perform to accomplish our organization's mission.
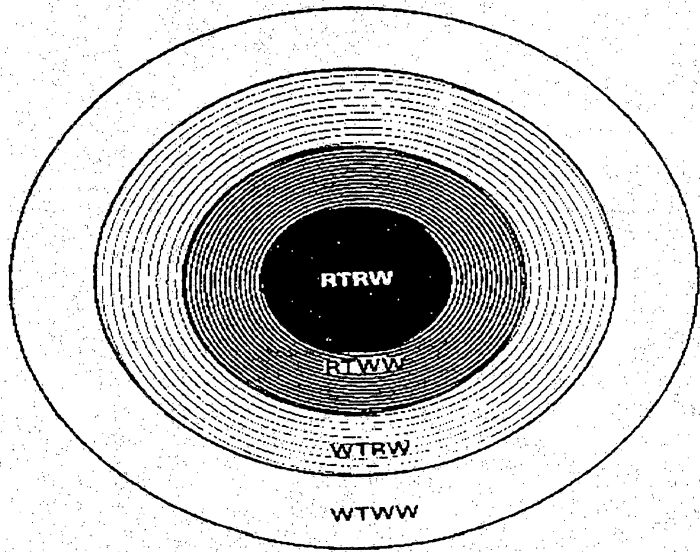
	PLAN	IMPLEMENT
RTRW-	RIGHT THINGS	RIGHT WAY
TRWW-	RIGHT THINGS	WRONG WAY
WTRW-	WRONG THINGS	RIGHT WAY
WTWW-	WRONG THINGS	WRONG WAY

SUMMARY

We looked at why quality is important for business. Even though we're an outstanding organization with a superb track record, we have often designed processes that limit our ability, as well as that of our subordinates, to serve our customers well. Quality is a means to consistently improve service to all our customers. It involves a cultural change and acceptance of the reality that we can, and must, shed barriers to quality service. All of us would rather spend our working day doing the right things the right way the first time rather than redoing many things over and over until they're finally right.

"WE DON'T ALWAYS HAVE TIME TO DO
IT RIGHT THE FIRST TIME, BUT WE
ALWAYS HAVE TIME TO DO IT OVER."

Mike Brown/Lorene Johnson

"DOING WHAT'S RIGHT ISN'T THE
PROBLEM. IT'S KNOWING WHAT'S
RIGHT."

Lyndon B. Johnson

BLOCK III

PROCESS IMPROVEMENT

INTRODUCTION

We introduced the concepts and importance of the cost and benefits of quality in the last block of instruction. This block provides us the opportunity to explore our relationship with our customers more fully. It will help us answer these questions: "Who are our customers?" and "How do we know whether or not we're meeting our customers' needs?" We will then look at work as a process and how to spot opportunities to improve that process. The block will end with a discussion of four phases of the continuous improvement process.

This block begins with an exercise designed to help you understand the importance of the customer. After all, service and support are what we provide-- internally to the organization as well as externally.

OBJECTIVES: Upon completion of this block, you should be able to:

- Identify your customers and suppliers and differentiate between internal and external customers and suppliers.

- Understand customer/supplier alignment with your organization.

- Describe work as a process and the concept of process ownership.

- Recognize opportunities for improvement.

- Understand the four phases of continuous improvement.

CUSTOMER/SUPPLIER RELATIONSHIP

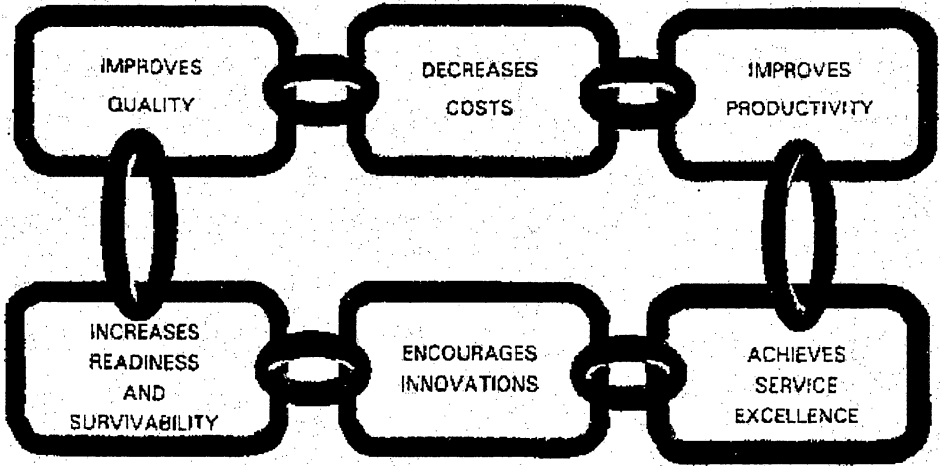The customer/supplier relationship is a key concept in any quality organization. While we may find ourselves a supplier in some situations, we are likely to find we are also customer in other situations. By recognizing this basic premise of service, we can then determine who our customers and suppliers are and what they need. Only by knowing our customers' needs can we work on meeting them. One caution however, we can only meet our customers' needs within the capabilities of our organization. Anything more will be detrimental not only to us, but in the long-term, to our customers as well.

SUPPLIER   **CUSTOMER**

| EXTERNAL SUPPLIERS | INPUTS → | INTERNAL SUPPLIERS | PROCESS(ES) | INTERNAL CUSTOMERS | OUTPUTS → | EXTERNAL CUSTOMERS |
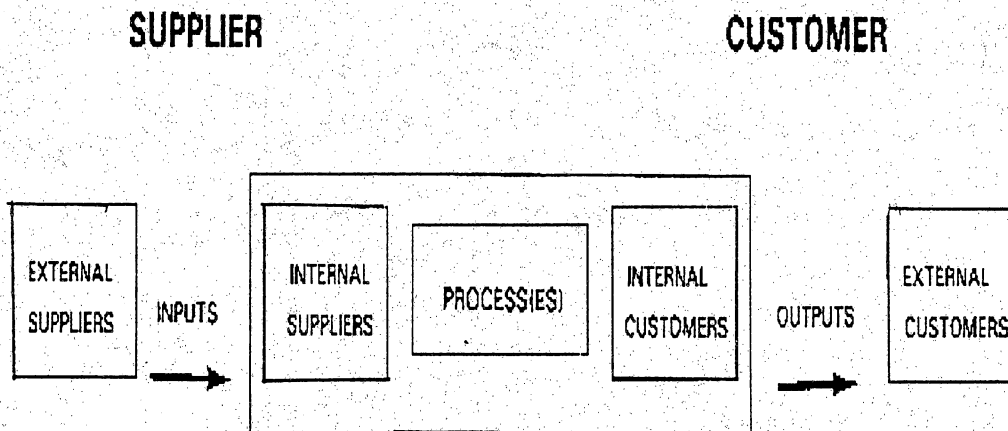
CONTINUOUS IMPROVEMENT

CHAIN

WHO ARE YOUR CUSTOMERS?

Take a few minutes and think about your customers and suppliers. Record them below, and we'll discuss them as a group.

EXTERNAL

Suppliers   Customers

INTERNAL

Suppliers   Customers

ALIGNMENT OF CUSTOMERS/SUPPLIERS

Customer/supplier alignment sets the stage for meeting our customers' needs within our capabilities. Unfortunately, we may not always meet our customers' needs. For example, we sometimes provide our customers what we think they need or perhaps more than they need. We should work with our customers to accurately determine their requirements and how we can best meet them. Providing too much can result in wasted resources that our customers may not actually need or want. Alignment is an agreement between customers and suppliers on the product or service being provided and the measurement of quality for that product or service. On the following page are for key questions, which can help us more accurately assess and meet the needs of our customers.

"IT IS NOT THE EMPLOYER WHO
PAYS WAGES--HE ONLY HANDLES
THE MONEY. IT IS THE PRODUCT
THAT PAYS WAGES."

Henry Ford

FOUR ALIGNMENT QUESTIONS

Suppliers should ask:

1.   What is your requirement?

2.   How will you use what I give you?

3.   How am I satisfying your requirements?

4.   How can I improve?

WORK AS A PROCESS

What is a process?

A series of tasks that provide a product or service.

Who is the process owner?

"The lowest ranking person who with a stroke of a pen, can authorize changing the process."

SPOTTING OPPORTUNITIES FOR IMPROVEMENT

Breakthrough: A change for improvement; a dynamic decisive movement to new higher levels of performance.

RISK-TAKING

We must help our people overcome fear of:

- Reprisal

- Failure.

- Providing information.

- Not knowing.

- Giving up control.

FOUR PHASES OF THE CONTINUOUS IMPROVEMENT PROCESS--IDEA

Identify the problem/opportunity for improvement.

- Understand the charter/objective.

- Identify problems/improvement opportunities.

- Prioritize/select the most significant problem(s)

- Develop a problem statement.

Determine the facts/root cause (s).

- Gather data.

- List possible root causes/improvement opportunities.

- Analyze cause/effect relationships.

- Select primary root cause(s)

Evaluate solutions and prepare an action plan.

- List possible solutions.

- Select the best solution(s)

- Prepare an action plan.

Act on the plan.

- Gain organizational support.

- Implement the solution.

- Track effectiveness.

SUMMARY

We discussed the importance of customers and suppliers and effective questions we can use to determine our customers' needs and proper alignment. All too often we assume our customers' needs and either provide too much or not enough. Unfortunately, we also often provide the wrong thing. We cannot pay "lip service" to this crucial relationship, nor can we assume we know best what our customers need. Both issues require analyses and care, otherwise we risk failing to provide quality support and service.

In addition, we looked at work as a process with emphasis on spotting opportunities for improvement. The focus of all discussions up to now centers on improving our processes. We know most people want to do well in their work -- it's the processes we must concentrate on improving. IDEA provides a structured approach to identify and effect positive changes in the process improvement effort.

"IT IS NOT WISE TO BE WISER
THAN NECESSARY."

Philippe Quinault

BLOCK IV

IMPLEMENTATION

INTRODUCTION

We discussed basic concepts, tools, and techniques of quality and how they can be used to improve our processes. What started with a vision has evolved into a quality support structure, dependent on each of us and our commitment to our customers, leaders, and subordinates.

Total quality is a leadership initiative and responsibility, not another management program. The commitment of top management is crucial to the total quality effort. Committed leaders must understand the vision for their organization to inspire their subordinates and point the way to the future. Leaders must develop a plan continuous improvement throughout their organization. To lead this effort, supervisors and managers must understand and stress the importance of a team approach as part of the quality improvement initiative.

OBJECTIVES: Upon completion of this block, you should be able to:

- Understand the vision and how company is organized for quality improvement.

- Recognize and explain the importance and elements of leader commitment.

- Realize the value of effective team building in your organization.

- Understand the purpose and characteristics of a vision statement.

- Develop an action plan to strengthen the quality culture within your organization.

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┌─────────────────────────────────────────────────┐
│                     ROLES                         │
└─────────────────────────────────────────────────┘
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Quality Executive Board

What: Defines policy, establishes budgets, and creates a vision for the

command.

Who: Key staff personnel—chaired by CEO.

Quality Council

Who: Key line and staff personnel.

What: Establishes objectives, determines priorities, and provides oversight

for staff and subordinate units.

Process Owner

Who: Key staff personnel.

What: Supports the team, reviews team progress, rewards/recognizes

team.

Process Improvement Team

Who: Functional experts.

What: Identifies process improvement opportunities, solves problems,

implements solutions. Management-directed.

• Team Leader

Who: Key staff and line personnel.

What: Leads the team, schedules/co-ordinates meetings, informs others.

- **Team Member**

Who: Staff and line personnel.

What: Participates on teams, supports team members, implements

solutions

- **Facilitator**

Who: Key staff and line personnel.

What: Coaches, teaches, advises.

- **Management/Supervisor**

Who: Key staff personnel.

What: Empowers subordinate, provides role model, and promotes change.

- **Unit Quality Team**

Who: Work center personnel.

What: Identifies work center improvement opportunities, solves problems,

implements solutions. Voluntary participation.

- **Individuals**

Who: Line personnel

What: Help others, make individual improvements, participate on teams.

ELEMENTS OF LEADER COMMITMENT

Encourage and support change.

- Attend Quality meetings at all levels.

- Participate regularly in the quality training effort.

- Practice management by walking around (MBWA).

Solve problems using established infrastructure.

- Use the quality council (or equivalent) to identify/Prioritize opportunities for improvement.

- Empower quality teams to develop/implement solutions.

Allocate resources (rime and money).

- Provide required personnel and time for quality activities (council meetings, process improvement teams, training, etc.).

- Provide money for top-down training throughout the organization.

- Provide personnel/money/time/facilities/equipment for implementation of solutions.

DEMONSTRATE LONG-TERM COMMITMENT TO IMPROVEMENT IN THE FACE OF SHORT-TERM PRESSURES.

- Be willing to pay up-front costs to satisfy long-term goals and benefits.

- Include continuous improvement in long-term plans.

- Include continuous improvement in long-term plans.

- Understanding that though some results will be immediate, many will take months/years of commitment to effect cultural change.

Reward quality initiatives

- Recognize individual/team accomplishments.

- Utilize monetary rewards.

- Provide time off.

- Be timely and specific.

Establish/promote policies to support quality in the organization.

- Write policy letters emphasising the importance of quality in the organization.

- Write periodic memos/letters or articles for local publications highlighting quality issues and success stories.

- Make quality a regular agenda item at staff meetings.

TEAM BUILDING

Why we use teams.

- Create synergy (1 + 1 > 2).

- Expand expertise in addressing the issue.

- Provide different perspectives in solving a complex issue.

- Improve attitudes, foster co-operation and team spirit.

- Increase buy-in decisions.

Types of Quality Improvement Teams

Unit quality teams (UQT)

- Voluntary functional co-worker participation.

- Address work center issues.

- Recommend improvement solutions to management.

Process Improvement teams (PIT).

Process Improvement teams (PIT).

- Formed by process owner.

- Organized by work process.

- Clear charter.

- Maybe cross-functional.

- 5-10 members.

- Process approach to improvement.

- Designated team leader.

- Assigned facilitator.

Process Owner

- Identifies process.

- Requests facilitator.

- Assigns team leader.

- Assigns/request team members.

- Develops parameters for team.

- Works with affected organization.

Team Leader

- Appointed by process owner.

- Expert in overall process.

- Leads team in process improvement effort.

- Provides direction.

- PIT focal point.

- Sets agenda.

- Reports status/results to process owner.

Team Members

- Functional experts.

- Nominated by work center manager.

- Appointed by process owner.

- Identify data flow.

- Assist in data collection and process analyses.

- Track/refine recommended solutions.

- Keep non-team members informed.

- My include customer and supplier representation.

- Consult specialist as needed.

Facilitator

- Appointed by management.

- Assists process analysis effort.

- Skilled in-group dynamics.

- Assists team in using tools.

- Helps maintain team momentum.

STAGES OF GROUP DEVELOPMENT

I. Forming

- Why am I here?

- What do I have to offer?

- Will I be accepted?

II . Storming.

- Who is in charge?

- Power relationships emerge.

- Alliances are formed.

III. Norming.

- Everyone's ideas are heard.

- Differences handled openly and consistently.

- Everyone supports decisions.

IV. Performing.

- Synergy is present.
- Success is achieved.

V. Adjourning

- Feel loss at team break-up?

- Need for appreciation, self-worth is high.

- Transfer of responsibility and ownership are paramount.

TEAM MEMBER ROLES

- A cluster of associated behaviors that an individual will tend to exhibit in a group.

- Individuals can have more than one role and emphasizes certain roles at different times.

- Two broad categories

  - Task-related behavior: Focus on the "what"—what needs to be done to accomplish the task successfully.

  - Process-related behavior: Focus on the "how" –how team is working as a group.

THE VISION STATEMENT

PURPOSE OF A VISION STATEMENT

- Goal driven to create unit esprit de corps.

- Promotes customer/supplier alignment to meet organizational objectives.

- Encourages commitment, support, and enthusiasm.

- Provides a foundation for strategic, long-term planning.

CHARACTERISTICS OF A VISION STATEMENT

Dynamic/inspiring.

- Oriented toward long-term objectives.

- General, challenging, meaningful, and achievable.

- Applicable to everyone.

PROMOTE/COMMUNICATE THE VISION STATEMENT

- Use common terms easily understood by all individuals in the organization.

- Monitor individual behavior to ensure message is understood.

- Communicate the vision as often as possible both verbally and in written form.

- Ensure leaders throughout the organization apply the vision to their work center.

- Periodically re-evaluate to ensure validity and applicability.

DEVELOPING AN ACTION PLAN

Establish your quality structure.

- Establish an infrastructure, e.g., staff, quality councils, process improvement teams, recognition/reward systems, and training programs, to implement quality initiatives.

- Ensure unit-level and cross-functional participation.

Train everyone.

- Determine training needs of leaders, middle managers, and employees.

- Conduct/ contract for appropriate training.

- Develop in-house training courses tailored to needs of the organization.

Allocate resources.

- Ensure adequate time, money, facilities, equipment, and personnel are allocated for training.

- Ensure adequate time is available for individuals to function in their place in the quality infrastructure, such as quality councils, PITs, etc.

- Dedicate adequate resources to implement corrective solutions and/or preventive actions.

- Allocate resources (time/money) for reward/recognition system.

Develop reward/recognition system.

- Use existing military awards.

- Develop additional incentives such as time off, monetary awards, certificates of appreciation, quarterly awards, etc.

certificates of appreciation, quarterly awards, etc.

- Reward both individuals and action teams.

- Publicize awards, success stories, initiatives, and results.

Institutionalise quality.

- Formalize the system in writing.

- Include structure, training requirements, reward/recognition system, goal setting, measurements, process analysis, and problem-solving approaches.

- Routinely use the quality structure and techniques.

Baseline

- Purpose of baselining: Need to know current position before determining where you want to go. Baseline will help you:

- Construct a picture of how processes are working.

- Determine strengths and weaknesses.

- Point a way toward making improvements.

- provide a basis for measuring progress.

Measure, monitor, and analyze.

- Analyze current process status, take measurements, identify current problems and opportunities for improvement, and modify customer satisfaction.

- Establish required measurements, analysis techniques, charts, etc., to be used.

- Periodically take measurements/surveys; analyze results of actions, make adjustments.

- Benchmark--compare performance against competition or other "world-class" organizations.

SUMMARY

We discussed the importance of leader commitment and initiatives to make quality a priority in our organizations. Our subordinates will want to support a focus on quality, but they will expect us as leaders to set the pace. Your commitment involves both talking and walking the quality journey.

APPENDIX A

PROJECT EVALUATION FORM

PROJECT EVALUATION FORM

1. **List all factors inside the handbook that you feel are too hard to understand about the Total Quality Management Handbook.**

    a. _____

    _____

    b. _____

    _____

    c. _____

    _____

2. **List the areas of the handbook that are easy to understand.**

    a. _____

    _____

    b. _____

    _____

    c. _____

    _____

3. **How do you feel the handbook should be written? Why?**

    _____

    _____

    _____

    _____

    _____

APPENDIX B

POST—EVALUATION FORM

POST—EVALUATION FORM

This form is to give an insight as to how the handbook is perceived by its users. The degree of success depends on how each question is weighed by its users. Please circle the appropriate number that best describes your success with the question.

Number 1 = Lowest   Number 5 = Highest

1. Was the handbook clear and concise?   1   2   3   4   5

2. Did the handbook offer easy to follow
   directions?   1   2   3   4   5

3. Do you believe that handbook is
   necessary?   1   2   3   4   5

4. Was the data informative and helpful?   1   2   3   4   5

5. Describe what you feel was the most
   important aspect of the handbook?
   _____
   _____
   _____.

6. What parts of the handbook need improvement?
   _____
   _____
   _____.

7. List any further topics you feel will give a better understanding to the user's needs.
   _____
   _____
   _____.

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