

A FOUNDATION
FOR
TOTAL QUALITY
MANAGEMENT

Harry V. Roberts Bernard F. Sergesketter

FOREWORD BY ROBERT W. GALVIN

# QUALITY IS PERSONAL

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Harry V. Roberts

Bernard F. Sergesketter

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 $\label{eq:continuous_potential} To June, DD, Andy, Celine, and V-Squared$ 

To Mary, whose love and friendship I cherish

Harry

Bernie

### **FOREWORD**

The authors have hit the bullseye! Quality is personal.

Since 1988 I probably have interfaced with more American business leaders on the subject of quality than any other general business executive. Most of these executives are raising their corporate sights and systems on quality, and impressively manifesting their dedication to new levels of achievement. All of them acknowledge that "the boss" has to be an involved believer if quality is to be a key culture, practice, and result in their renewing companies.

But no one has bought in more quickly or as practically as Bernie Sergesketter. He tells of that profound initial buy-in and has demonstrated from the initial moment on, the most effective personal role modelship vis-à-vis quality by any senior executive that I know of.

Harry Roberts, a proven influence in the study of quality, has revitalized his advanced teachings on the subject, rallying off Bernie's example.

Together they bring a new dimension to the personal leadership and management of quality that, to the best of my knowledge, has rarely been employed. As they spell it out—as Bernie does it day in, day out, and as Harry exercises it in his key classes—you will be introduced to a simple tool with a profound effect.

The two of them were kind to invite me to inscribe this foreword. I consider it a privilege to acknowledge that their basic idea is the single most powerful concept to leverage the personal leadership of the quality process since the Malcolm Baldrige National Quality Award reawakened America's energies in behalf of satisfying the highest quality expectations by industry.

Robert W. Galvin Chairman of the Executive Committee Motorola, Inc.

### TIPS FOR THE READER

The concepts of personal quality set forth in this book can be useful to you, and soon. You don't have to read the whole book in order to get started, and the book will be easier and more rewarding to read if you are actually applying the concepts to your own work and life.

A quick reading of Chapters 1 through 2 will convey the general idea, and get you started with an initial personal quality checklist. It is well not to freeze your checklist immediately, but to start recording defects for a few days, permitting yourself to revise standards as necessary. While you are doing this, you can skim Chapter 3 to get ideas about additional standards that might help you.

The rest of the book can be browsed at any time. Detailed reading can be reserved for those topics that most intrigue you. Repeated browsing is likely to be more effective than a single sustained reading. Chapter 4 gives several approaches to personal quality improvement that do not employ checklists. These will be most useful after you are well on the way to using and benefiting from your personal quality checklist; for some readers, they may even be applied before the checklist is made. In any event, it is Chapter 4 that will show how to maintain the momentum of continuous improvement.

Chapter 5 extends ideas of personal quality to organizational quality. The Appendix gives nontechnical ideas of statistical analysis for your defect counts in order to assess whether you are improving, and by how much. The statistical emphasis is on simple graphical techniques and visual interpretation of the graphs.

## **ACKNOWLEDGMENTS**

We were fortunate to have the support of many people in developing the concepts in this book. From the very start, Bob Galvin offered us his encouragement and inspiration, and he shared his knowledge and insights with us. Bob cares very deeply about quality, and we learned much by just observing the way he works. Bob's associates at Motorola, particularly Paul Noakes, Bill Smith, and Keki Bhote helped us and told us we were pursuing something worthwhile.

We thank Tink Campbell for bringing the two of us together. As president of the Chicago Presidents Organization, Tink asked each of us to speak at a Quality Forum for that group in August of 1991, and that is how we met. Tink is devoted to quality and has made Total Quality Management a way of life in his company.

We appreciate the support and participation of many people at AT&T. Bob Allen set the stage for the importance of quality several years ago. He is committed to delighting customers, and he believes deeply that quality happens through people. Phil Scanlan, AT&T's quality vice president, has a wonderful depth of knowledge in quality and was most generous with his advice and counsel. Linda Brand, Mary Rodino, Roberta Coleman, Bill Fuess, and Pat Black are all experts in quality and encouraged the use of the concepts in this book with their associates. There isn't enough room to acknowledge all of the other people in AT&T who were helpful, particularly those in the Central Region of Business Network Sales.

For the first intensive student tryouts of the concepts presented in this book, we are grateful to students in the 62nd group of the Executive Program, Graduate School of Business, University of Chicago, to students in subsequent MBA classes in quality and productivity improvement at Chicago, and to participants in the Chicago Presidents Organization Total Quality Forum in 1991–1992. Attendees at many short

courses and talks have provided valuable feedback. Many of these contributions appear directly in the book, although examples of applications are presented anonymously to maintain confidentiality.

We have also drawn on ideas from many people knowledgeable in business and quality management, starting chronologically with Benjamin Franklin, we have presented their names along with their ideas, so that all these contributions are reflected in the index. So many colleagues at the University of Chicago have stimulated our efforts that any short enumeration is bound to be incomplete, however, we must explicitly mention George Bateman, Selwyn Becker, Harry Davis, George Easton, Tim Fuller, Abbie Griffin, Bill Golomski, Robert Kenmore, Bill Kooser, Al Madansky, and Bill Zangwill.

The people at The Free Press were great throughout the project. In particular we thank Bob Wallace, Lisa Cuff, Robert Harrington, Linnea Johnson, and Kay Wahrsager for all that they added along the way.

We received wonderful support from our families during our writing of this book, and that is special to us. They encouraged us and were patient with us, and they enabled us.

To all of you, named and unnamed, who helped us in so many ways, our sincere thanks.

### INTRODUCTION

Many of us would like to learn more about quality and also do a better job of meeting our professional and personal goals. That is what this book is about. Its concepts are straightforward, and they have been proven to be very effective.

Today's quality principles have their roots in improving manufacturing processes with a focus on how machines function. We have applied these principles to the way people live and work, taking into account human aspirations and needs for fulfillment. The lesson we learned is that the fundamental principles of quality apply to all work and are just as relevant to services as they are to manufacturing.

There is, however, another key lesson, which is the basis of our beliefs. Quality as practiced by the individual is the foundation on which Total Quality Management is built. Quality is based on the actions of people. Total Quality Management cannot exist without all the people in an organization understanding and practicing the principles of quality at a personal level.

Bob Galvin, a world leader in Total Quality Management, spoke about the personal aspects of quality in an address to the Economic Club of Chicago. He said that quality used to be a corporate way of life; now it has also become a personal one:

We have operated very substantially under the rubric of quality control. Our institutions, our companies have had quality departments. And the old testament was that quality is a company, a department, and an institutional responsibility.

The new truth is radically different. Quality is a very personal obligation. If you can't talk about quality in the first person . . . then you have not moved to the level of involvement of quality that is absolutely essential. [This] . . . is the most useful thing I can say. . . . You must be a believer that quality is a very personal responsibility.

This book will show you how to apply the principles of quality to all that you do as an individual. It will show you how to improve your personal performance as well as the performance of your organization or team, and it will show you how to hold the gains.

Harry Roberts Bernie Sergesketter

# **QUALITY IS PERSONAL**

# CONTENTS

	Foreword	vii
	Tips for the Reader	ix
	Acknowledgments	xi
	Introduction	xiii
1.	Quality, Personal Quality, and Personal Quality Checklists	1
2.	How to Get Started on Your Own Personal Quality Checklist	27
3.	Experiences with Personal Quality Checklists	45
4.	Other Routes to Personal Quality Improvement	61
5.	Beyond Personal Quality	109
	Conclusion	131
	Appendix: Elementary Statistics Tutorial Based on Personal Quality	133
	Index	161
	About the Authors	169

v

## QUALITY, PERSONAL QUALITY, AND PERSONAL QUALITY CHECKLISTS

### 1. QUALITY AND TOTAL QUALITY MANAGEMENT

Although our primary interest is quality for the individual—in work and in everyday life—we begin with a brief survey of organizational quality, or, as it is frequently called, Total Quality Management (TQM). (Parts of this survey are drawn from the Report of the Working Council on Core Body of Knowledge for the Procter & Gamble Total Quality Forum of 1992.)

The working assumption of TQM is that continual organizational improvements, *small and large*, are not only possible but are necessary for long-term survival. Opportunities for improvement are recognized primarily by continuing reexamination of *all* existing constraints on the way that work is done. This reexamination is focused on all organizational processes, and it is guided by three basic ideas, which have to be sold to all employees:

- 1. Orient all efforts towards delighting customers and removing waste in (or constraints on) internal processes.
- 2. Stress team effort at all levels inside and outside the organization, including cooperative efforts with suppliers and customers.
- 3. Use data and scientific reasoning to guide and evaluate improvement efforts, and to hold the gains from past improvements.

These three ideas, when applied systematically, lead to management practices that are very different from traditional practices. The new practices are so appealing that many people, upon first encountering them, will insist that they have been following them all along.

The ideas of TQM lead to much more than meets the eye on first

glance. And they pose a profound psychological challenge: they say that, no matter what we have done in our lives up to now, we must be prepared to find that we can do enormously better. This is gratifying in the sense that improvement is always gratifying. But it also suggests that what we have done in the past is going to look bad in the light of present knowledge. For many of us, that is hard to accept.

The detailed management tactics of TQM go beyond traditional optimization within fixed constraints to shoot at ever-moving improvement targets by relaxing or eliminating constraints. Since there is no end to opportunities to relax or eliminate constraints, improvement is never ending.

#### **Relaxing Constraints**

"Relaxing a constraint" is an abstract expression. One of the authors offers a personal example of what it means. In 1968 the author and his teenage son were jogging along a mountain trail in North Carolina when they were confronted by a large eastern timber rattlesnake who was visibly and noisily blocking the trail. They stopped abruptly about ten yards short of the rattler. The father picked up a large dead branch and advanced on the snake, intending to make him move off the trail so that they could continue the run. The son called out in alarm, "Dad, let's just walk around him!"

They took a wide semicircle around the snake and continued on their way. The rattler went on rattling, but the confrontation had been avoided. Here, the constraint was the assumption that the process of jogging demanded that they stay on the trail; the removal of the constraint permitted the run to continue without a potentially disastrous incident.

### A Definition of TQM

TQM is a people-focused management system that aims at continual increase of customer satisfaction at continually lower real cost. This is a total system approach (not a separate area or program), and an integral part of high-level strategy, it works horizontally across functions and departments, involves all employees, top to bottom, and extends backward and forward to include the supply chain and the customer chain.

TQM stresses learning and adaptation to continual change as keys to organizational success.

The foundation of TQM is philosophical: the scientific method. It includes systems, methods, and tools. The systems permit change, the philosophy stays the same. TQM is anchored in values that stress the dignity of the individual and the power of community action.

TQM is in one sense a highly democratic system, but it requires dedicated and informed leadership from senior management, leadership that is aware of the obstacles to successful implementation. TQM goes beyond specific improvements, however desirable these may be, to the transformation of organizations and organizational cultures from what they are today to something very different.

#### What Is In an Acronym?

TQM is only one of many acronyms used to label the management system that we have just described. Some of these acronyms are widely used, especially CQI for Continuous Quality Improvement. Others are specific to given companies or organizations. Three comments are in order:

- The substance that underlies the acronym is what matters.
- Labeling a given organization's activities by one of these acronyms does not in itself demonstrate that the organization is implementing the management system we are discussing.
- All the current acronyms could pass out of use without affecting the usefulness of the management system here described. An organization could implement the concepts without using any acronym at all:

### Definition of Quality

This approach to TQM suggests that customer satisfaction—even customer delight—is a useful definition of "quality." Customer satisfaction has many dimensions, of which conformance to specifications\* is only one. In addition, in *Building a Chain of Customers* (New York: The Free Press, 1988), Richard Schonberger, distinguishes:

- ° performance\*
- ° quick (some suggest "fimely") response
- o quick change expertise
- features\*
- ° reliability\*
- durability\*
- serviceability\*
- ° aesthetics\*
- o perceived quality\*
- · humanity
- value

The eight starred items are taken from a listing by David Garvin, Managing Quality: The Strategic and Competitive Edge (New York: The Free Press, 1988). Schonberger points out that the four unstarred items are not just variations or extensions of the first eight: they are basic and vital in their own right. Thus quality, considered carefully, includes more than has been traditionally subsumed in the term, certainly much more than conformance to specifications. Conformance to specifications is desirable—essential—when the specifications are aimed at achieving customer satisfaction.

But even more, quality becomes everyone's job, it cannot be delegated to inspectors or a quality assurance department. This is where personal quality fits in. This seems like a blinding glimpse of the obvious, but it does need to be discussed, elaborated, and, above all, made concrete in terms of what we do from day to day.

### Manufacturing Quality and Service Quality

Much of the work and literature on TQM has been focused on manufacturing. Quality in manufacturing requires meeting or exceeding customer expectations by making products that consistently operate within customer-based specifications.

Although manufacturing quality and service quality are similar—manufactured products are desired only to the extent that they provide services to customers—it is easier to understand and visualize good quality in manufacturing. People nod their heads in assent when they

hear about service quality, but they don't know how to go about making it happen.

From manufacturing experience, we know that managing quality has two key components: to count and reduce defects, and to measure and reduce cycle time, the time that it takes to complete a given process, such as the assembly of a car. These fundamentals carry over to services. If you do not address these two fundamentals, you will not achieve your quality objectives. Do a good job on these fundamentals, and the rest is straightforward, it's fun. This requires, however, that every person in a service organization count defects or measure cycle time for those processes that are the most important in meeting or exceeding customers' expectations.

This sounds simple, but it demands a fundamental culture change in which customer expectations are accorded the highest importance, and ambitious goals are specified for improvement in all current processes. Note, in particular, that the easy answer of improving quality by hiring more people or spending more money becomes a last resort rather than a first step.

#### Service in the United States

Airplanes don't often take off and land on time, even in decent weather. When you get something repaired, it is likely that it won't be ready when promised, and that something else will be damaged in the process. If you need work done in your home or you expect a delivery to your home, prepare to rearrange your life for the convenience of the supplier. Salesclerks talk to each other and seem offended that you are interrupting them. There are lines to check in at hotels in the evening and then to check out in the morning. You may die in the hospital emergency room while they get the information you gave them three months ago, if you survive the emergency room and are admitted to the hospital, you will provide the same information again, perhaps many times.

Traditionally, these examples are typical of service levels. If customers have even thought about it, they have concluded that poor service, like death and taxes, is inevitable. The only option seems to be to grin and bear it.

But it doesn't have to be this way: things are changing. If you need