

# Statistical Process Improvement – Resource List

## Manitoba Quality Network (QNET) Resource Centre

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The following resources are available in the **Manitoba Quality Network (QNET) Resource Library**. If you would like to find out more about how to access resources in the QNET's library, please contact QNET – phone: (204) 949-4999, fax: (204) 949-4990 or email: [mail@qnet.mb.ca](mailto:mail@qnet.mb.ca) (September 2002)

### **BOOKS**

#### **DEMING'S 14 POINTS APPLIED TO SERVICES, by A.C. Rosander**

Applying W. Edwards Deming's authoritative 14 Points to the service industries, this essential guide reveals how to maintain a competitive edge in industry via quality service - emphasizing the importance of safety and zero human error in improving services. The book explains each of Deming's 14 Points and introduces statistical methods for working with them.

#### **FAST FOCUS ON TQM: A MANAGER'S LOOK AT TQM TERMS AND TOPICS**

*by Derm Barrett*

TQM has a considerable vocabulary of terms and phrases. This handbook defines common terms and explains phrases and comments on their meaning, significance or importance.

#### **HOW TO PERFORM STATISTICAL TOLERANCE ANALYSIS, Neil D. Cox**

This book deals with techniques of statistical tolerance analysis, allowing the engineer to evaluate the effect of manufacturing tolerances and uncertainties in functional parameters on the performance or dimensions of a product. It provides information on the probability distribution of the output so that decisions can be made. This general tool can be used in the analysis of systems of a general nature.

#### **HOW TO TEST NORMALITY AND OTHER DISTRIBUTIONAL ASSUMPTIONS**

*by Samuel S. Shapiro*

This book describes several procedures for testing distributional assumptions. It includes probability plotting and a number of the most powerful analytical procedures for testing for the normal, lognormal, exponential, Weibull, and extreme value distributions.

#### **JURAN ON PLANNING FOR QUALITY, by J.M. Juran**

In a clear, step-by step form, Juran outlines the processes of the "quality trilogy" - quality planning, quality control, and quality improvement. This book is designed to function as a road map guiding managers on the road to improved quality. Juran brings in-house the methodology and tools needed for impressive results where they count - in products, performance and profits.

#### **PRINCIPLES AND PRACTICES OF TQM, by Thomas J. Cartin**

This is an easy overview of TQM illustrated with a detailed explanation of quality tools. The book shows how management's adoption of TQM is necessary to keep a competitive edge. It highlights all the recognized principles used in TQM in an insightful way that is easily understood.

#### **SPC FOR ADMINISTRATIVE & SERVICE FUNCTIONS, by Perry Johnson**

The workbook teaches you how to apply and use Statistical Process Control in non-manufacturing functions. It is an in-depth course in the theory and practice of SPC.

### **STATISTICAL METHODS FOR FOOD QUALITY MANAGEMENT, *Subhash C. Puri***

The achievement of excellence in food production requires the establishment of an effective total quality management system that systematically lays down optimally precise procedures. This book is intended to provide some guidelines for establishing quality assurance procedures as well as basic statistical tools for the analysis and interpretation of data.

### **THE MEMORY JOGGER PLUS +, *by Michael Brassard***

This book features the proven Seven Management and Planning Tools in an in-depth text. Learn to identify breakthroughs in thinking and strategy, prevent expensive and time-consuming plan revisions, and create plans that work.

### **TQM TEAM BUILDING AND PROBLEM SOLVING, *by Perry Johnson***

Team members, leaders and facilitators will learn about types of teams, effective team management, goal setting, conduct of meetings, feedback systems and more. It teaches a refined problem-solving system, including selection of the most critical problem, identification of possible causes, selection and testing of most likely cause, identification and verification of most likely solution and implementation.

### **THE QUALITY TOOLBOX, *by Nancy R. Trague***

This complete reference explains more than 50 quality tools. Use the Seven Basic Tools, the Seven management and Planning Tools, a selection of Matrices and flowcharts, uncommon forms of brainstorming techniques, and other tools for use in generating and organizing ideas.

### **WHAT IS TOTAL QUALITY CONTROL?, *by Kaoru Ishikawa***

One of the world's foremost authorities on quality, Ishikawa goes beyond philosophy to the ins and outs of implementing a Total Quality Control program based on customer satisfaction. This book illustrates how to go from an inspection based Quality Control program to a process oriented one, how to use basic statistical tools and how to administer a total company-wide Quality Control program that includes both vertical and cross-functional control.

## **VIDEOS**

### **TOTAL QUALITY MANAGEMENT, *Volume 1, 62:00***

Highlights: How much poor quality really costs your company; The 4 key elements of total quality management; The benefits of improving quality; Data vs. opinion; How to get a more accurate measure; How to weigh alternatives objectively to make the best decision; How we misuse data to blame people; Using the 7 basic tools of quality control; and The role of statistics in TQM.

### **TQC/MANUFACTURING: THE CUSTOMER, THE PROCESS, THE DATA, *18:00***

Workers in the maintenance department of Hewlett Packard's Integrated Circuits Division demonstrate how Total Quality Control enable them to identify and eliminate errors in circuit board production

### **TQC/SERVICE: THE CUSTOMER, THE PROCESS, THE DATA, *18:00***

Through TQC's statistical process control, Hewlett-Packard's Direct Marketing Division gained back control over their overdue receivables - they found that most of the delinquent account problems were a result of their own business practices.

### **THE DEMING VIDEO LIBRARY**

Volume 1 to Volume 20

### **THE DEMING USER'S MANUAL**

Volume 1 to Volume 4