

Resources

This section points you to readily accessible resources where you can learn more about individual tools. In some cases, a reference is the original source for the tool. Other sources provide more detail or depth than could be included in this book. Some of the resources, especially Web sites, have lists of or links to additional references. Many more references to quality tools exist than can be listed here. For example, textbooks on quality control include many tools. Consider these references suggestions and starting points for additional information.

A few tools are not listed; in those cases, neither an original source nor any references that go beyond the information provided in this book could be located. Ironically, some of the most fundamental, widely used tools have the least information available. A half dozen tools were developed by the author or colleagues within the author's organization. For those tools, a note states that this book is the primary reference.

After the individual tool references are two more lists. One shows Web sites that house collections of tools for quality improvement and creativity. The second shows Web sites that provide information on a wide range of statistical topics.

CHAPTER 2: MEGA-TOOLS: QUALITY MANAGEMENT SYSTEMS

Evolution of Quality Control

Juran Institute. www.juran.com.

Skymark Corporation. "Management Thought Leaders." Skymark.

www.skymark.com/resources/leaders/biomain.asp.

The W. Edwards Deming Institute. www.deming.org.

Total Quality Management

- Imai, Masaaki. *Kaizen: The Key to Japan's Competitive Success*. New York: Random House, 1986.
- Ishikawa, Kaoru. *Guide to Quality Control*. Tokyo: Asian Productivity Organization, 1986.
- Mizuno, Shigeru (ed.). *Management for Quality Improvement: The 7 New QC Tools*. Cambridge, MA: Productivity Press, 1995.

Quality Function Deployment

- Ermer, Donald S., and Mark K. Iniper. "Delighting the Customer: Quality Function Deployment for Quality Service Design." *Total Quality Management* 9, no. 4/5 (July 1998): 86.
- Mazur, Glenn. "QFD Case Studies and White Papers." *QFD and Voice of Customer Analysis*. Japan Business Consultants Ltd. www.mazur.net/publish.htm.
- Xie, Min, Kay-Chuan Tan, and Thong Ngee Goh. *Advanced QFD Applications*. Milwaukee: ASQ Quality Press, 2003.

ISO 9000

- Bergenhengouwen, Louise, Annemarie de Jong, and Henk J. de Vries. *100 Frequently Asked Questions on the ISO 9000:2000 Series*. Milwaukee: ASQ Quality Press, 2002.
- Cianfrani, Charles A., Joseph J. Tsiakals, and John E. West. *ISO 9001:2000 Explained*, Second Edition. Milwaukee: ASQ Quality Press, 2001.
- Seddon, John. "A Brief History of ISO-9000." *Lean Service—Systems Thinking for Service Organisations*. www.lean-service.com/home.asp.

Malcolm Baldrige National Quality Award

- Blazey, Mark L. *Insights to Performance Excellence 2004: An Inside Look at the 2004 Baldrige Award Criteria*. Milwaukee: ASQ Quality Press, 2004.
- National Institute of Standards and Technology. "Baldrige National Quality Program." U.S. Commerce Department, Technology Administration, National Institute of Standards and Technology. www.quality.nist.gov.

Benchmarking

- American Productivity and Quality Center. www.apqc.org.
- Camp, Robert. *Benchmarking: The Search for Industry Best Practices that Lead to Superior Performance*. Milwaukee: ASQ Quality Press, 1989.
- Spendolini, Michael J. *The Benchmarking Book*. 2nd ed. New York: AMACOM, 2003.

Six Sigma

- Breyfogle, Forrest W., III. *Implementing Six Sigma: Smarter Solutions Using Statistical Methods*. Hoboken, NJ: John Wiley & Sons, 2003.
- i-Six Sigma. "New to Six Sigma: A Six Sigma Guide for Both Novice and Experienced Quality Practitioners." i-Six Sigma LLC. www.isixsigma.com/library/content/six-sigma-newbie.asp.
- Pyzdek, Thomas. *The Six Sigma Handbook*. New York: McGraw-Hill, 2003.
- Wheeler, Donald J. "The Six-Sigma Zone." *SPC Ink*, 2002. SPC Press.
www.spcpress.com/ink_pdfs/The%20Final%206%20Sigma%20Zone.pdf.

Lean Manufacturing

- AGI-Goldratt Institute. www.goldratt.com.
- Goldratt, Eliyahu M., and Jeff Cox. *The Goal: A Process of Ongoing Improvement*. Croton-on-Hudson, NY : North River Press, 1992.
- Lean Manufacturing Enterprise Technical Group, Society of Manufacturing Engineers.
www.sme.org/cgi-bin/communities.pl?communities/techgroups/lean_mfg/l_m_e_o.htm
- Levinson, William A., and Raymond A. Rerick. *Lean Enterprise: A Synergistic Approach to Minimizing Waste*. Milwaukee, WI: Quality Press, 2002.
- Pyzdek, Thomas. *The Six Sigma Handbook*. New York: McGraw-Hill, 2003.

TRIZ

- Ideation International. www.ideationtriz.com.
- Rantanen, Kalevi, and Ellen Domb. *Simplified TRIZ: New Problem Solving Applications for Engineers & Manufacturing Professionals*. Milwaukee: Quality Press, 2002.
- The TRIZ Journal*. TRIZ Institute. www.triz-journal.com.

CHAPTER 3: THE QUALITY IMPROVEMENT PROCESS

- Kayser, Thomas A. *Mining Group Gold: How to Cash in on the Collaborative Brain Power of a Group*. New York: McGraw-Hill, 1995.
- Scholtes, Peter, Brian L. Joiner, and Barbara J. Streibel. *The Team Handbook*. Madison, WI: Joiner/Oriel Inc., 2003.

CHAPTER 4: QUALITY IMPROVEMENT STORIES

- Medrad, Inc. www.medrad.com.
- Pearl River School District. www.pearlriver.k12.ny.us.
- Saint Luke's Hospital of Kansas City.
https://www.saintlukeshealthsystem.org/slhs/com/system/baldrige/quality_search.htm.

CHAPTER 5: TOOLS

ACORN Test

Gilbert, Thomas F. *Human Competence: Engineering Worthy Performance*. New York: McGraw-Hill, 1978.

Affinity Diagram

Kabay, M. E. "Computer-Aided Thematic Analysis: Useful Technique for Analyzing Non-Quantitative Data." *Ubiquity* 4: issue 24 (August 6, 2003). Association for Computing Machinery. www.acm.org/ubiquity/views/v4i24_kabay.html.

Mizuno, Shigeru (ed.). *Management for Quality Improvement: The 7 New QC Tools*. Cambridge, MA: Productivity Press, 1995.

Arrow Diagram

Levy, Ferdinand K., Gerald L. Thompson, and Jerome D. West. "The ABCs of the Critical Path Method." In *Managing Projects and Programs*. Harvard Business Review Reprint Series, no. 10811. Boston: Harvard Business School Press, 1989.

Miller, Robert W. "How to Plan and Control with PERT." In *Managing Projects and Programs*. Harvard Business Review Reprint Series, no. 10811. Boston: Harvard Business School Press, 1989.

Mizuno, Shigeru (ed.). *Management for Quality Improvement: The 7 New QC Tools*. Cambridge, MA: Productivity Press, 1995.

Balanced Scorecard

Kaplan, Robert S., and David P. Norton. "The Balanced Scorecard—Measures That Drive Performance." *Harvard Business Review* 70, no. 1 (Jan/Feb92): 71–79.

———. "Using the Balanced Scorecard as a Strategic Management System." *Harvard Business Review* 74, no.1 (Jan/Feb96): 75–85.

———. *The Balanced Scorecard: Translating Strategy into Action*. Boston: Harvard Business School Press, 1996.

Benchmarking

American Productivity and Quality Center. www.apqc.org.

Camp, Robert. *Benchmarking: The Search for Industry Best Practices that Lead to Superior Performance*. Milwaukee: ASQC Quality Press, 1989.

Spendolini, Michael J. *The Benchmarking Book*. 2nd ed. New York: AMACOM, 2003.

Benefits and Barriers

Pritchard, Blanchard. "Quality Management." In *Encyclopedia of Chemical Processing and Design*, vol. 46, exec. editor John J. McKetta. New York: Marcel Dekker, 1994.

Box Plot

Cleveland, William S. *The Elements of Graphing Data*. Murray Hill, NJ: AT&T Bell Laboratories, 1994.

Heyes, Gerald B. "The Box Plot." *Quality Progress* 18, no. 12 (December 1985): 12–17.

———. "The GHOST Box Plot." *Statistics Division Newsletter*, ASQC (summer 1988).

Iglewicz, Boris, and David C. Hoaglin. "Use of Boxplots for Process Evaluation." *Journal of Quality Technology* 19, no. 4 (October 1987): 180–90.

Tukey, John W. *Exploratory Data Analysis*. Reading, MA: Addison-Wesley, 1977.

Brainstorming and Brainwriting

de Bono, Edward. *Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas*. New York: HarperCollins, 1992.

Infinite Innovations Ltd. "Brainstorming.co.uk." www.brainstorming.co.uk.

Iowa State University Extension Service. "Group Decision Making Tool Kit." Iowa State University Extension to Communities.

www.extension.iastate.edu/communities/tools/decisions.

Mycoted, Ltd. "Creativity Techniques." *Creativity & Innovation in Science & Technology*. www.mycoted.com/creativity/techniques/index.php.

VanGundy, Arthur B. *Techniques of Structured Problem Solving*. New York: Van Nostrand Reinhold, 1988.

Cause-and-Effect Matrix

Breyfogle, Forrest W., III. *Implementing Six Sigma: Smarter Solutions Using Statistical Methods*. Hoboken, NJ: John Wiley & Sons, 2003.

Checklist

Ishikawa, Kaoru. *Guide to Quality Control*. Tokyo: Asian Productivity Organization, 1986.

Checksheets

Ishikawa, Kaoru. *Guide to Quality Control*. Tokyo: Asian Productivity Organization, 1986.

Juran Institute, Inc. "The Tools of Quality: Part V; Check Sheets." *Quality Progress* 23, no. 10 (October, 1990): 51–56.

Contingency Table

GraphPad Software, Inc. "Creating Contingency Tables." *The Prism Guide to Interpreting Statistical Results*. www.graphpad.com/articles/interpret/contingency/contin_tables.htm.

Ishikawa, Kaoru. *Guide to Quality Control*. Tokyo: Asian Productivity Organization, 1986.

Continuum of Team Goals

This tool was developed by the author in the early 1990s. This book is the primary reference.

Control Charts

Hoyer, Robert W., and Wayne C. Ellis. "A Graphical Exploration of SPC: Part 2." *Quality Progress* 29, no. 6 (June 1996): 57–64.

Ishikawa, Kaoru. *Guide to Quality Control*. Tokyo: Asian Productivity Organization, 1986.

McNees, William H., and Robert A. Klein. *Statistical Methods for the Process Industries*. Milwaukee: ASQC Quality Press, 1991.

Wheeler, Donald, and David Chambers. *Understanding Statistical Process Control*. Knoxville, TN: SPC Press, 1986.

Correlation Analysis

Filliben, James J., and Alan Heckert. "Linear Correlation Plot." In *NIST/SEMATECH e-Handbook of Statistical Methods*, ed. Carroll Croarkin and Paul Tobias, 2004.

U.S. Commerce Department, Technology Administration, National Institute of Standards and Technology, Information Technology Laboratory.

www.itl.nist.gov/div898/handbook/eda/section3/linecorr.htm.

Ishikawa, Kaoru. *Guide to Quality Control*. Tokyo: Asian Productivity Organization, 1986.

StatSoft, Inc. "Elementary Concepts in Statistics." *Electronic Statistics Textbook*. StatSoft, 2004. www.statsoft.com/textbook/stathome.html.

Cost-of-Poor-Quality Analysis

This tool was developed within Ethyl Corporation in the late 1980s. This book is the primary reference. For information about the concept of cost of poor quality:

Juran, Joseph M., and Frank M. Gryna, Jr. *Quality Planning and Analysis: From Product Development Through Use*. New York: McGraw-Hill, 1980.

Schiffauerova, Andrea, and Vince Thomson. "Cost of Quality: A Survey of Models and Best Practices." Submitted to International Journal of Quality and Reliability Management.

Available online at McGill University, Masters in Manufacturing Management.

www.mmm.mcgill.ca/documents-frame.html.

Criteria Filtering

VanGundy, Arthur B. *Techniques of Structured Problem Solving*. New York: Van Nostrand Reinhold, 1988.

Critical-to-Quality Analysis and Critical-to-Quality Tree

Berryman, Maurice L. "DFSS and Big Payoffs: Transform Your Organization Into One That's World Class." *Six Sigma Forum Magazine* 2, no. 1 (November, 2002). American Society for Quality. www.asq.org/pub/sixsigma/past/vol2_issue1/berryman.html.

Brown, Tony. "The Critical List." *Quality World*, August, 2002. Institute of Quality Assurance. www.iqa.org/publication/c4-1-71.shtml.

Cycle Time Chart

Harrington, H. James. *Business Process Improvement: The Breakthrough Strategy for Total Quality, Productivity, and Competitiveness*. New York: McGraw-Hill, 1991.

Decision Matrix

Dodgson, John, Michael Spackman, Alan Pearman, and Lawrence Phillips. *Multi-Criteria Analysis Manual*, Jun 25, 2004. UK, Office of the Deputy Prime Minister. www.odpm.gov.uk/stellent/groups/odpm_about/documents/page/odpm_about_608524.hcsp.

Decision Tree

American Association for Artificial Intelligence. "Decision Trees." American Association for Artificial Intelligence. www.aaai.org/AITopics/html/trees.html.

Design of Experiments

Barrentine, Larry. *An Introduction to Design of Experiments: A Simplified Approach*. Milwaukee: ASQ Quality Press, 1999.

Bhote, Keki R. *World Class Quality: Using Design of Experiments to Make It Happen*. New York: AMACOM, 1991.

Wheeler, Donald J. *Understanding Industrial Experimentation*. Knoxville, TN: SPC Press, 1990.

FMEA

FMECA.COM. Haviland Consulting Group. www.fmeca.com.

Stamatis, D. H. *Failure Mode and Effect Analysis: FMEA from Theory to Execution*. Milwaukee: ASQ Quality Press, 2003.

Fault Tree Analysis

- Long, Allen. *Fault-Tree.Net*. www.fault-tree.net.
- Texas Workers' Compensation Commission. "Fault Tree Analysis." Texas Workers' Compensation Commission, Workers' Health & Safety Division. www.twcc.state.tx.us/information/videoresources/stp_fault_tree.pdf.
- U.S. Coast Guard. "Fault Tree Analysis." In *Risk Assessment Tools Reference*. Risk-Based Decision-Making Guidelines, vol. 3. U.S. Department of Homeland Security, U.S. Coast Guard. www.uscg.mil/hq/g-m/risk/E-Guidelines/RBDM/html/vol3/09/v3-09-cont.htm.

Fishbone Diagram

- Fukuda, Ryuji. *Managerial Engineering: Techniques for Improving Quality and Productivity in the Workplace*. Cambridge, MA: Productivity Press, 1997.
- Ishikawa, Kaoru. *Guide to Quality Control*. Tokyo: Asian Productivity Organization, 1986.
- Sarazen, J. Stephen. "The Tools of Quality: Part II; Cause-and-Effect Diagrams." *Quality Progress* 23, no. 7 (July 1990): 59–62.

5W2H

- Japan Human Relations Association. *The Service Industry Idea Book : Employee Involvement in Retail and Office Improvement*. Translated by Fredrich Czupryna. Cambridge, MA: Productivity Press, 1990.

Flowchart

- Burr, John T. "The Tools of Quality: Part I; Going with the Flow(chart)." *Quality Progress* 23, no. 6 (June 1990): 64–67.
- Cram, David M. "Flowcharting Primer." *Training and Development Journal* 34, no. 7 (July, 1980): 64–68.

Force Field Analysis

- Lewin, Kurt. *Resolving Social Conflicts and Field Theory in Social Science*. Washington, D.C.: American Psychological Association, 1997.
- Stratton, A. Donald. "Solving Problems with CEFFA." *Quality Progress* 19, no. 4 (April 1986): 65–70.

Gantt Chart

- Tufte, Edward. "Project Management Graphics (or Gantt Charts)." Online posting, Mar 20, 2002. The Work of Edward Tufte and Graphics Press, Ask E.T. Forum. www.edwardtufte.com/bboard/q-and-a-fetch-msg?msg_id=000076&topic_id=1
- Wilson, James M. "Gantt Charts: A Centenary Appreciation." *European Journal of Operational Research* 149, no. 2 (September 2003): 430.

Graph

- Chambers, John M., William S. Cleveland, Beat Kleiner, and Paul A. Tukey. *Graphical Methods for Data Analysis*. Boston: Duxbury Press, 1983.
- Cleveland, William S. *The Elements of Graphing Data*. Murray Hill, NJ: AT&T Bell Laboratories, 1994.
- Filliben, James J., and Alan Heckert. "Exploratory Data Analysis." In *NIST/SEMATECH e-Handbook of Statistical Methods*, ed. Carroll Croarkin and Paul Tobias, 2004. U.S. Commerce Department, Technology Administration, National Institute of Standards and Technology, Information Technology Laboratory. www.itl.nist.gov/div898/handbook/eda/eda.htm.
- Rutchik, Robert H. *Guidelines for Statistical Graphs*. U.S. Department of Energy, Energy Information Administration. www.eia.doe.gov/neic/graphs/preface.htm.
- Tufte, Edward R. *The Visual Display of Quantitative Information*. Cheshire, CT.: Graphics Press, 2001.

Histogram and other frequency distributions

- Chambers, John M., William S. Cleveland, Beat Kleiner, and Paul A. Tukey. *Graphical Methods for Data Analysis*. Boston: Duxbury Press, 1983.
- Cleveland, William S. *The Elements of Graphing Data*. Murray Hill, NJ: AT&T Bell Laboratories, 1994.
- Filliben, James J., and Alan Heckert. "Exploratory Data Analysis: Histogram." In *NIST/SEMATECH e-Handbook of Statistical Methods*, ed. Carroll Croarkin and Paul Tobias, 2004. U.S. Commerce Department, Technology Administration, National Institute of Standards and Technology, Information Technology Laboratory. www.itl.nist.gov/div898/handbook/eda/section3/histogra.htm.
- Gunter, Berton H. "Subversive Data Analysis, Part I: The Stem and Leaf Display." *Quality Progress* 21, no. 9 (September 1988): 88–89.
- Ishikawa, Kaoru. *Guide to Quality Control*. Tokyo: Asian Productivity Organization, 1986.

House of Quality

- See also the QFD references listed for Chapter 2.
- Hauser, John R., and Don Clausing. "The House of Quality." *Harvard Business Review* 66, no. 3 (May–June 1988): 63–73.

Hypothesis Testing

- Filliben, James J., and Alan Heckert. "Exploratory Data Analysis: Quantitative Techniques." In *NIST/SEMATECH e-Handbook of Statistical Methods*, ed. Carroll Croarkin and Paul Tobias, 2004. U.S. Commerce Department, Technology Administration, National Institute of Standards and Technology, Information Technology Laboratory. www.itl.nist.gov/div898/handbook/eda/section3/eda35.htm.
- Lane, David M. "HyperStat Online Textbook." *Rice Virtual Lab in Statistics*, Rice University. davidmlane.com/hyperstat/index.html.

Importance–Performance Analysis

Andreasen, Alan. *Marketing Social Change: Changing Behavior to Promote Health, Social Development, and the Environment*. San Francisco: Josey-Bass, 1995.

Simply Better! “Voice of the Customer Workbook.” U.S. Department of Labor, Employment and Training Administration. www.workforce-excellence.net/pdf/vocwkbk.pdf.

Is–Is Not Matrix

Kepner-Tregoe, Inc. *Analytic Trouble Shooting*. Princeton, NJ: Kepner-Tregoe, 1966.

Kepner, Charles H., and Benjamin B. Tregoe. *The New Rational Manager*. Princeton, NJ: Princeton Research Press, 1981.

Matrix Diagram

Brassard, Michael. *Memory Jogger Plus+: Featuring the Seven Management and Planning Tools*. Methuen, MA: Goal/QPC, 1996.

Mizuno, Shigeru (ed.). *Management for Quality Improvement: The 7 New QC Tools*. Cambridge, Mass: Productivity Press, 1995.

Meeting Evaluation

Scholtes, Peter, Brian L. Joiner, and Barbara J. Streibel. *The Team Handbook*. Madison, WI: Joiner/Oriel Inc., 2003.

Mind Map

Buzan, Tony. *Mind Maps®*. Buzan Centres Ltd.
www.mind-map.com/EN/mindmaps/definition.html.
www.buzan.org

Mistake Proofing

Chase, Richard B., and Douglas M. Stewart. “Make Your Service Fail-Safe.” *Sloan Management Review* 35, no. 3 (Spring 1994): 35–44.

Grout, John. “John Grout’s Poka-Yoke Page.” Berry College.
www.campbell.berry.edu/faculty/jgrout/pokayoke.shtml.

Nikkan Kogyo Shimbun/Factory Magazine, ed. *Poka-Yoke: Improving Product Quality by Preventing Defects*. Portland, OR: Productivity Press, 1989.

Shingo, Shigeo. *Zero Quality Control: Source Inspection and the Poka-Yoke System*. Translated by Andrew P. Dillon. Portland, OR: Productivity Press, 1986.

Multi-Vari Chart

- Bhote, Keki R. *World Class Quality: Using Design of Experiments to Make It Happen*. New York: AMACOM, 1991.
- Perez-Wilson, Mario. *Multi-Vari Chart and Analyses*. Scottsdale, AZ: Advanced Systems Consultants, 1993.

Multivoting

- Delbecq, Andre L., Andrew H. Van de Ven, and David H. Gustafson. *Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes*. Middleton, WI: Green Briar Press, 1986.
- Huber, George, and A. L. Delbecq. "Guidelines for Combining the Judgments of Individual Group Members in Decision Conferences." *Academy of Management Journal* 15, no. 2 (June, 1972): 161.

Nominal Group Technique

- Delbecq, Andre L., Andrew H. Van de Ven, and David H. Gustafson. *Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes*. Middleton, WI: Green Briar Press, 1986.
- Dunham, Randall B. "Nominal Group Technique: A User's Guide." *Organizational Behavior Web Course*, University of Wisconsin School of Business. instruction.bus.wisc.edu/obdemo/readings/ngt.html.

Normal Probability Plot

- Chambers, John M., William S. Cleveland, Beat Kleiner, and Paul A. Tukey. *Graphical Methods for Data Analysis*. Boston: Duxbury Press, 1983.
- Filliben, James J., and Alan Heckert. "Exploratory Data Analysis: Normal Probability Plot." In *NIST/SEMATECH e-Handbook of Statistical Methods*, ed. Carroll Croarkin and Paul Tobias, 2004. U.S. Commerce Department, Technology Administration, National Institute of Standards and Technology, Information Technology Laboratory. www.itl.nist.gov/div898/handbook/eda/section3/normprpl.htm.
- Gunter, Bert. "Q-Q Plots." *Quality Progress* 27, no. 2 (February 1994): 81–86.

Operational Definition

- Deming, W. Edwards. *Out of the Crisis*. Cambridge, MA.: Massachusetts Institute of Technology, Center for Advanced Engineering Study, 1986.
- Scholtes, Peter, Brian L. Joiner, and Barbara J. Streibel. *The Team Handbook*. Madison, WI: Joiner/Oriel Inc., 2003.

Paired Comparison

Manktelow, James, ed. "Paired Comparison." Mind Tools.

www.mindtools.com/pages/article/newTED_02.htm.

Peterson, George. "Paired Comparison Tool." U.S. Department of Agriculture, Natural Resources Conservation Service, Social Sciences Institute.

www.ssi.nrcs.usda.gov/SSIEnvPsy/nrcs/paircomp.html.

Pareto Chart

Burr, John T. "The Tools of Quality: Part VI; Pareto Charts." *Quality Progress*, 23, no. 11 (November 1990): 59–61.

Juran, Joseph M., and A. Blanton Godfrey. *Juran's Quality Handbook*. New York: McGraw-Hill, 1999.

Ishikawa, Kaoru. *Guide to Quality Control*. Tokyo: Asian Productivity Organization, 1986.

Performance Index

Riggs, James, and Glenn Felix. *Productivity by Objectives*. Englewood Cliffs, NJ: Prentice Hall, 1983.

———. "Productivity Measurement by Objectives." *National Productivity Review* 2, no. 4 (Autumn, 1983): 386–393.

PGCV Index

Hom, Willard C. "Make Customer Service Analyses a Little Easier with the PGCV Index." *Quality Progress* 30, no. 3 (March 1997): 89–93.

Plan–Do–Study–Act Cycle

Deming, W. Edwards. *The New Economics for Industry, Government, Education*. Cambridge, MA: Massachusetts Institute of Technology, Center for Advanced Engineering Study, 1993.

Scholtes, Peter, Brian L. Joiner, and Barbara J. Streibel. *The Team Handbook*. Madison, WI: Joiner/Oriel Inc., 2003.

Plan–Results Chart

This tool was developed within Ethyl Corporation in the late 1980s. This book is the primary reference.

PMI

de Bono, Edward. *Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas*. New York: HarperCollins, 1992.

Potential Problem Analysis

- Kepner, Charles H., and Benjamin B. Tregoe. *The New Rational Manager*. Princeton, NJ: Princeton Research Press, 1981.
- VanGundy, Arthur B. *Techniques of Structured Problem Solving*. New York: Van Nostrand Reinhold, 1988.

Presentation

- Hoff, Ron. *"I Can See You Naked."* Kansas City, MO: Andrews and McNeel, 1992.
- Tufte, Edward. *The Cognitive Style of PowerPoint*. Cheshire, CT: Graphics Press, 2003.

Prioritization Matrix

- Brassard, Michael. *Memory Jogger Plus+: Featuring the Seven Management and Planning Tools*. Methuen, MA: Goal/QPC, 1996.
- Dodgson, John, Michael Spackman, Alan Pearman, and Lawrence Phillips. "The Basic AHP Procedure." In *Multi-Criteria Analysis Manual*, 2004. UK, Office of the Deputy Prime Minister. www.odpm.gov.uk/stellent/groups/odpm_about/documents/page/odpm_about_608524-13.hcsp.
- Saaty, Thomas L. *The Analytical Hierarchy Process: Planning, Priority Setting, Resource Allocation*. New York: McGraw-Hill, 1980.

Process Capability Index

- Bothe, Davis R. *Measuring Process Capability*. Milwaukee: ASQ Quality Press, 2001.
- Gunter, Berton H. "The Use and Abuse of Cpk." *Quality Progress* 22, no. 1 (January 1989): 72–73.
- . "The Use and Abuse of Cpk, Part 2." *Quality Progress* 22, no. 3 (March 1989): 108–9.
- . "The Use and Abuse of Cpk, Part 3." *Quality Progress* 22, no. 5 (May 1989): 70–71.
- . "The Use and Abuse of Cpk, Part 4." *Quality Progress* 22, no. 7 (July 1989): 86–87.
- Kotz, Samuel, and Norman L. Johnson. "Process Capability Indices—A Review, 1992–2000 (with Subsequent Discussions and Response)." *Journal of Quality Technology* 34, no. 1 (January 2002): 2–53. American Society for Quality. www.asq.org/pub/jqt/past/vol34_issue1/index.html.

Process Decision Program Chart

- Mizuno, Shigeru (ed.). *Management for Quality Improvement: The 7 New QC Tools*. Cambridge, MA: Productivity Press, 1995.

Project Charter

Swinney, Jack. "Project Charter." i-Six Sigma.

www.isixsigma.com/library/content/c010218a.asp.

Snee, Ronald D., and Roger W. Hoerl. *Leading Six Sigma: A Step-by-Step Guide Based on Experience with GE and Other Six Sigma Companies*. Upper Saddle River, NJ: Financial Times/Prentice Hall, 2003.

Project Charter Checklist

Scholtes, Peter, Brian L. Joiner, and Barbara J. Streibel. *The Team Handbook*. Madison, WI: Joiner/Oriel Inc., 2003.

Radar Chart

Carangelo, Richard M. "Clearly Illustrate Multiple Measurables with the Web Chart." *Quality Progress* 28, no. 1 (January 1995): 36.

Chambers, John M., William S. Cleveland, Beat Kleiner, and Paul A. Tukey. *Graphical Methods for Data Analysis*. Boston: Duxbury Press, 1983.

Regression Analysis

Chambers, John M., William S. Cleveland, Beat Kleiner, and Paul A. Tukey. *Graphical Methods for Data Analysis*. Boston: Duxbury Press, 1983.

Motulsky, H. J. "Linear Regression." *Curvefit.com*. *The Complete Guide to Nonlinear Regression*. GraphPad Software, 1999. curvefit.com/linear_regression.htm.

Relations Diagram

Brassard, Michael. *The Memory Jogger Plus+*. Methuen, MA: GOAL/QPC, 1989.

Mizuno, Shigeru (ed.). *Management for Quality Improvement: The 7 New QC Tools*. Cambridge, MA: Productivity Press, 1995.

Repeatability and Reproducibility Study

Barrentine, Larry B. *Concepts for R&R Studies*. Milwaukee: ASQ Quality Press, 2003.

Croarkin, Carroll. "Gauge R&R Studies." In *NIST/SEMATECH e-Handbook of Statistical Methods*, ed. Carroll Croarkin and Paul Tobias, 2004. U.S. Commerce Department, Technology Administration, National Institute of Standards and Technology, Information Technology Laboratory. www.itl.nist.gov/div898/handbook/mpc/section4/mpc4.htm.

Wheeler, Donald J., and Richard W. Lyday. *Evaluating the Measurement Process*. 2d ed. Knoxville, TN: SPC Press, 1989.

de Bono, Edward. *Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas*. New York: HarperCollins, 1992.

Requirements Table

This tool was developed within Ethyl Corporation in the late 1980s. This book is the primary reference.

Requirements-and-Measures Tree

This tool was developed within Ethyl Corporation in the late 1980s. This book is the primary reference.

Run Chart

Pande, Peter S., Roland R. Cavanaugh, and Robert P. Neuman. *The Six Sigma Way Team Fieldbook: An Implementation Guide for Process Improvement Teams*. New York: McGraw-Hill, 2001.

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Hembree, Barry. "Define the Sampling Plan." In *NIST/SEMATECH e-Handbook of Statistical Methods*, ed. Carroll Croarkin and Paul Tobias, 2004. U.S. Commerce Department, Technology Administration, National Institute of Standards and Technology, Information Technology Laboratory. www.itl.nist.gov/div898/handbook/ppc/section3/ppc33.htm.

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Scatter Diagram

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