

QUALITY ENGINEERING REFERENCES

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GENERAL QUALITY

Articles

Thomas O. Jones and W. Earl Sasser Jr., "Why Satisfied Customers Defect", *Harvard Business Review*, November-December, 1995 <https://hbr.org/1995/11/why-satisfied-customers-defect>

Guaspari, John, "Customer Means Customer", *Quality Digest*, August, 1998
<http://www.qualitydigest.com/oct98/html/customer.html>

Main, Jeremy, "Motorola and Six Sigma", excerpts from the book *Quality Wars: Triumphs and Defeats of the American Business*, Available at: <http://people.stern.nyu.edu/djuran/2310dl.htm>

Bohn, Roger, "Stop Fighting Fires", *Harvard Business Review*, July-August, 2000
<https://hbr.org/2000/07/stop-fighting-fires>

Taguchi, Genichi, Clausing, Don, "Robust Quality", *Harvard Business Review*, January-February 1990.
<https://hbr.org/1990/01/robust-quality>

Internal Ford Video "Continuous Improvement in Quality and Productivity" produced by Radio, TV, and Public Affairs Staff, Ford Motor Company, Dearborn, MI (1987).
<https://www.youtube.com/watch?v=uAfUOfSY-SQ>

BASIC STATISTICS

Articles

Wheeler, Donald, "Analyzing Data – The Effect of Variation", Quality Digest March 1996
<http://www.qualitydigest.com/mar/spctools.html>

W. E. Deming, "On Probability as a Basis for Action", American Statistician, November 1975, Vol. 29, No. 4, pp. 146-152 <https://www.deming.org/media/pdf/145.pdf>

W. E. Deming, "On the Distinction Between Enumerative and Analytic Surveys", The Journal of the American Statistical Association, Vol. 48, 1953, pp. 244-255 <https://deming.org/media/pdf/081.pdf>

Wheeler, Donald, "Enumerative and Analytic Studies", Quality Digest, July 2018,
<https://www.qualitydigest.com/inside/statistics-column/enumerativeand-analytic-studies-071618.html>

Stauffer, Rip, "Render unto Enumerative Studies...", Quality Digest, July 2013
<http://www.qualitydigest.com/inside/quality-insider-column/render-unto-enumerative-studies.html>

Schwinn, David, "Teaching Statistics that Help not Hinder Management", Quality Digest, September 2012 <http://www.qualitydigest.com/inside/quality-insider-article/manage-numbers.html>

"Preface to Performance Measurement: Understanding Ratios",
<http://www.processexcellencenetwork.com/six-sigma-quality/articles/preface-to-performance-measurement-understanding-/>

"Ratios: Abuses and Misuses", <http://www.sixsigmaiq.com/lean-six-sigma-business-transformation/articles/ratios-abuses-and-misuse/>

"Averaging Ratios and the Perils of Aggregation", <http://www.sixsigmaiq.com/lean-six-sigma-business-transformation/articles/averaging-ratios-and-theperils-of-aggregatio/>

Pyzdek, Thomas, "Non-Normal Distributions in the Real World", Quality Digest, December 1999,
<https://www.qualitydigest.com/magazine/1999/dec/article/non-normal-distributions-real-world.html>

Wheeler, Donald, "The Normality Myth", Quality Digest September 2019,
<https://www.qualitydigest.com/print/32893>

Wheeler, Donald, "Transforming the Data Can Be Fatal to Your Analysis" Quality Digest, September, 2009 <http://www.qualitydigest.com/print/8884>

De Mast, Jeroen, Tripp, Albert, "Exploratory Data Analysis in Quality Improvement Projects", Journal of Quality Technology, Vol. 39, No. 4, (October 2007), pp. 301-311

Good, I. J., "The Philosophy of Exploratory Data Analysis" Philosophy of Science, 50 (1983) pp. 283-295.

Good, I. J. "Some Logic and History of Hypothesis Testing", in Philosophical Foundations of Economics (1980)

F. J. Anscombe, "Graphs in Statistical Analysis", American Statistician, 27 (February 1973), pp. 17-21

Wheeler, Donald, "Don't be Deceived by Chunky Data", Quality Magazine, April 1999

Wheeler, Donald, "What is Chunky Data?", Quality Digest, December, 2011

<http://www.qualitydigest.com/inside/quality-insider-article/what-chunky-data.html>

Wheeler, Donald, "Probability Models do not Generate Your Data", Quality Digest, March, 2009

<http://www.qualitydigest.com/magazine/2009/mar/department/probability-models-don-t-generate-your-data.html>

Wheeler, Donald, "Numerical Jabberwocky", Quality Digest, April, 2015

<http://www.qualitydigest.com/inside/statisticscolumn/040115-numerical-jabberwocky.html>

Wheeler, Donald, "All Outliers are Evidence", Quality Digest, May, 2009

<http://www.qualitydigest.com/magazine/2009/may/department/all-outliers-are-evidence.html>

NIST, "Detection of Outliers", Engineering Statistics Handbook,

<http://www.itl.nist.gov/div898/handbook/eda/section3/eda35h.htm>

Wheeler, Donald, "Why We Keep Having Hundred Year Floods", Quality Digest, June 2013,

<http://www.qualitydigest.com/inside/quality-insider-column/why-we-keep-having-100-year-floods.html>

Wheeler, Donald, "The Secret Foundation of Statistical Analysis", Quality Digest, December 2015

<http://www.qualitydigest.com/inside/standards-column/120115-secret-foundation-statistical-inference.html>

Wheeler, Donald, "Statistics 101 and Data Analysis", Quality Digest, March 2016

<http://www.qualitydigest.com/inside/standards-column/030716-statistics-101-and-data-analysis-example.html>

Pease, Bob, "What's all this Statistical Stuff, Anyhow?", Electronic Design, March 1991

<http://electronicdesign.com/archive/whats-all-statistical-stuff-anyhow>

"A Painless Look at Using Statistical Techniques to Find the Root Cause of a Problem",

<http://www.processexcellencenetwork.com/lean-six-sigma-business-transformation/articles/a-painless-look-at-using-statistical-techniques/>

"A Brief Note on Overlapping Confidence Intervals", Austin, Peter C., Hux, Janet E., Journal of Vascular Surgery, Volume 36, No. 1, pp194-195 [http://www.jvascsurg.org/article/S0741-5214\(02\)00030-7/pdf](http://www.jvascsurg.org/article/S0741-5214(02)00030-7/pdf)

"Sifting the Evidence – What's Wrong With Significance Tests?", Sterne, Jonathon A. G., Smith, George Davey, British Medical Journal, Volume 322, January 2001, pp226-231

"The Insignificance of Statistical Significance Testing", Johnson, Douglas H., Journal of Wildlife Management, Vol. 63, Issue 3, pp. 763-772, 1999

http://www.ecologia.ufrgs.br/~adrimelo/lm/apostilas/critic_to_p-value.pdf

"The Case Against Statistical Significance Testing", Carver, Ronald P., Harvard Educational Review, Vol 48, Issue 3, pp 378-399, 1978 <http://healthyinfluence.com/wordpress/wp-content/uploads/2015/04/Carver-SSD-1978.pdf>

"What Statistical Significance Testing Is and What It Is Not", Shaver, James P., Journal of Experimental Education, No.61, pp. 293-316, 1993

"Why Should Researchers Report the Confidence Interval in Modern Research?", Middle East Fertility Society Journal, Vol 10, No. 1, 2005 Evidence Based Medicine Corner
<http://www.bioline.org.br/pdf?mf05015>

Deming, W. Edwards, Foreword to *"Statistical Method from the Viewpoint of Quality Control"*, Shewhart, Walter A., Dover Publications, 1986
<http://library.isical.ac.in:8080/jspui/bitstream/123456789/6845/1/Statistical%20method%20from%20the%20viewpoint%20of%20quality%20control.pdf>

Bauernfeind, R. H., *"The Need for Replication in Educational Research"*, Phi Delta Kappan, 1968, 50:126-128.

Duffy Roger E., *"Pareto Analysis and Trend Charts: A Powerful Duo"*, One Good Idea, Quality Progress, p. 152, November 1995

Student (William Sealey Gossett), *"The Probable Error of a Mean"*, Biometrika, 6, 1908, pp. 1-25
<http://www.york.ac.uk/depts/math/histstat/student.pdf>

Dallal, Gerald E. www.jerrydallal.com/LHSP/p05.htm *"Why $p=0.5$?"*, (commentary on R. A. Fisher's early statistical work regarding the selection of an alpha risk of .05 and its subsequent adoption as a statistical norm)

Siegried, Tom, *"Odds Are, It's Wrong – Science fails to face the shortcomings of statistics"*, Science News, Vol.177 #7, March 27, 2010

Tukey, John W., *"Analyzing Data: Sanctification or Detective Work?"*, American Psychologist, No. 24, pp. 83-91, 1969

Wheeler, Donald J., *"What is an Alpha Level"*, Quality Digest, June 2018,
<https://www.qualitydigest.com/print/25329>

"Variations of Box Plots", McGill, Robert, Tukey, John W., and Larsen, Wayne A., The American Statistician, February 1978, 32(1)

"Approximate Is Better Than "Exact" For Interval Estimation Of Binomial Proportions", Agresti, A. and Coull, B. A. The American Statistician, 52(2), p. 119-126, (1998)
http://www.stat.ufl.edu/~aa/articles/agresti_coull_1998.pdf

"Confidence Interval for 0 Observations, or How I learned to Stop Worrying and Love the Binomial Distribution" Internal email IDEXX Labs, Inc. Jeff Phelps author

"If Nothing Goes Wrong, Is Everything All Right?", Hanley, James A. and Lippman-Hand, Abby, The Journal of the American Medical Association, April, 1983, Vol. 249, No. 13, pp1,743-1,745.

"Zero Defect Sampling", Gojanovic, Tony, Quality Progress, November, 2007, p.72

Leonard A. Seder, *"Diagnosis With Diagrams – Part I"*, *Industrial Quality Control*, January 1950, pp. 11-19

Leonard A. Seder, "Diagnosis With Diagrams – Part II", *Industrial Quality Control*, March 1950, pp. 7-11

Steiner, Stefan H. and Jock MacKay, R., (2009) "*Designed Experiments with Fixed and Varying Factors—A Cautionary Tale*", *Quality Engineering*, 21:4, p.384-391

Books

Deming, W. Edwards, "Some Theory of Sampling", John Wiley, 1950

Moen, Ronald D., Nolan, Thomas, W., Provost, Lloyd P., "Quality Improvement through Planned Experimentation" 2nd Edition, McGraw-Hill, 1999

Sleeper, Andrew, Design for Six Sigma Statistics, McGraw-Hill, 2006

NIST Engineering Statistics Handbook, <http://www.itl.nist.gov/div898/handbook/index.htm>

Perez-Wilson, Mario; Multi Vari – A Pre-Experimentation Technique, Advanced Systems Consultants, 1992

Ott, Ellis R., Schilling, Edward G., Process Quality Control, Second Edition, McGraw-Hill, 1975

Bhote, Keki R. and Bhote, Adi K., World Class Quality - Using Design of Experiments to Make it Happen, Second Edition, AMACOM, 2000

Traver, Robert W., Industrial Problem Solving - Isolating the Key Variables, First Edition, Hitchcock Publishing, 1989

Kida, Thomas, Don't Believe Everything You Think, Prometheus Books, 2006

Spirer, Herbert F., Spirer, Lousie, Jaffe, A. J., Misused Statistics, Marcel Dekker, 1998

MEASUREMENT SYSTEMS ANALYSIS I

Articles

Wheeler, Donald J., Craig Award Paper, "Problems With Gauge R&R Studies", 46th Annual Quality Congress, May 1992, Nashville TN, pp. 179-185.

Wheeler, Donald, Problems with Gauge R&R Studies, reprint, Quality Digest January 2011, <http://www.qualitydigest.com/print/13552>

Youden, William John, "Graphical Diagnosis of Interlaboratory Test Results", Industrial Quality Control, May 1959, Vol. 15, No. 11

Donald S. Ermer and Robin Yang E-Hok, "Reliable data is an Important Commodity", *The Standard*, ASQ Measurement Society Newsletter, Winter 1997, pp. 15-30.

Ermer, Donald S., "Improved Gauge R&R Measurement Studies (Part 1)", Quality Progress, March 2006

Ott, Ellis R., "Analysis of Means – A Graphical Procedure", Industrial Quality Control, August 1967, pp. 101-109 <http://asq.org/qic/display-item/?item=5443>

Donald J Wheeler, "An Honest Gauge R&R Study", Manuscript 189, January 2009. <http://www.spcpress.com/pdf/DJW189.pdf>

Donald Wheeler, "Good Data, Bad Data and Process Behavior Charts", ASQ Statistics Division Special Publication, SPC Press, January 2003 <http://www.spcpress.com/pdf/DJW165.pdf>

Donald Wheeler, "How to Establish Manufacturing Specifications", ASQ Statistics Division Special Publication, June 2003, <http://www.spcpress.com/pdf/DJW168.pdf>

Hopkins, Wil G., "A New View of Statistics", 1997 <http://www.sportsci.org/resource/stats/>

Prond, Paul, and Ermer, Donald S., "A Geometrical Analysis of Measurement System Variations", ASQC Quality Congress Transactions – Boston, 1993 Another version: <http://www.stat.purdue.edu/~kuczek/stat513/improved-gage-rr-measurement-studies.pdf>

Morris, Raymond A., and Watson, Edward, F., "A Comparison of the Techniques Used to Evaluate the Measurement Process", Quality Engineering, 11(2), 1998, pp. 213-219

Futrell, David, "When Quality is a Matter of Taste, Use Reliability Indexes", Quality Progress, Vol. 28, No. 5, May 1995, pp. 81-86

Bland, Martin, J., Altman, Douglas, G., "Statistical Methods For Assessing Agreement Between Two Methods Of Clinical Measurement", The Lancet, February 8, 1986 <https://www-users.york.ac.uk/~mb55/meas/ba.pdf>

Dietmar Stockl, Diego Rodriguez Cabaleiro, Katleen Van Uytfanghe, Linda M. Thienpont "Interpreting Method Comparison Studies by Use of the Bland–Altman Plot: Reflecting the Importance of Sample Size by Incorporating Confidence Limits and Predefined Error Limits in the Graphic", Letter to the Editor, Clinical Chemistry, 50, No. 11, 2004

Stuart Spitalnic, MD, *“Test Properties I: Sensitivity, Specificity, and Predictive Values”*; Hospital Physician
September 2004 http://turner-white.com/memberfile.php?PubCode=hp_sep04_values.pdf

Leefland, Moons, Reitsma, Zwinderman, *“Bias in Sensitivity and Specificity Caused by Data-Driven
Selection of Optimal Cutoff Values”*, Clinical Chemistry 54:4 (2008)

Klotins, K and Martin, S and Bonnett, B and Peregrine, A, *“Canine heartworm testing in Canada: are we
being effective?”*

Alfred Saah, MD, MPH and Donald R. Hoover, PhD, MPH, *“Sensitivity” and “Specificity” Reconsidered:
The Meaning of The Terms in Analytical and Diagnostic Setting.*; Annals of Internal Medicine.

Books

Donald J Wheeler, Richard W Lyday., *Evaluating The Measurement Process*, Second Edition, SPC Press,
1988

Agresti, Alan, *“An Introduction to Categorical Data Analysis”*, John Wiley & Sons, 1996

PROBLEM SOLVING STRATEGIES

Articles

Dale, H. C. A., "Fault Finding in Electronic Equipment", *Ergonomics*, pp. 356-383, 1957

Gano, Dean, L., "Effective Problem Solving – A New Way of Thinking", Apollo Associated Services, Inc., www.apollo-as.com

Allen, John R., Hartshorne, David J., "The Art and Science of Fixing Things", 2006, www.tnsft.com

Allen, John, R., "Strategic Decomposition of Machine Behavior and the Analytic Logic Map", *The New Science of Fixing Things*

De Mast, Jeroen, "Diagnostic Quality Problem Solving: A Conceptual Framework and Six Strategies", *Quality Management Journal*, Vol. 20, No. 4, 2013, ASQ

Early, John F., A. Blanton, Godfrey, "But it Takes too Long", *Quality Progress*, July 1995

Why Did the Titanic Sink? 4 Grid © 2002 www.historyonthenet.co.uk
http://www.historyonthenet.com/sites/all/themes/hon_theme/worksheets/titanic/why_did_titanic_sink.doc

<http://www.geocities.com/friendshiptimes/April/Titanic.html>

"New Data Support Theory about Titanic Rivets", *Tech Beat*, January, 1999

http://www.nist.gov/public_affairs/techbeat/tb9901.htm

<http://www.discovery.com/stories/science/sciencetitanic/1140pm.html> (titanic)

"Did the Titanic Sink Because of an Optical Illusion?" *The Smithsonian*, March 2012

<http://www.smithsonianmag.com/science-nature/did-the-titanic-sink-because-of-an-optical-illusion-102040309/?no-ist>

Seder, Leonard, "The Technique of Experimenting in the Factory", *Industrial Quality Control*, March 1948

Steiner, Stefan H., MacKay, R. Jock, "Strategies for Variability Reduction", *Quality Engineering*, Volume 10, Issue 1, September 1997, pp 125-136

Kavuri, Surya N., Rengaswamy, Raghunathan, Venkatasubramanian, Venkat, "A Review of Process Fault Detection and Diagnosis Part II: Qualitative models and search strategies", *Computers and Chemical Engineering*, 27 (2003), pp. 313-326

Smith, Gerald, F., "Determining the Cause of Quality Problems: Lessons From Diagnostic Disciplines", *Quality Management Journal*, 98 5, No. 2, 1998 ASQ

Gano, Dean, L., "Effective Problem Solving – A New Way Of Thinking", Apollo Associated Services, Inc., www.apollo-as.com

Haviland, Paul R., "Analytical Problem Solving", The Haviland Consulting Group, www.fmeca.com

John, Sladky Jr., "Revolutionary Methods for Problem Solving", *45th Annual Quality Congress*, May 1991, Milwaukee WI, pp. 64-70

"A Painless Look at Using Statistical Techniques to Find the Root Cause of a Problem",
<http://www.processexcellencenetwork.com/lean-six-sigma-business-transformation/articles/a-painless-look-at-using-statistical-techniques/>

Youden, W. J., "Locating Sources of Variability in a Process", *Industrial and Engineering Chemistry*, September, 1951, Vol 43, No.9, pp. 2059-2062

De Mast, , "The Tactical Use of Constraints and Structure in Diagnostic Problem Solving", *Omega*, 39 (2011) pp702-709

Platt, John R., "Strong Inference", *Science*, Vol 146, No. 3642, October 1964
http://pages.cs.wisc.edu/~markhill/science64_strong_inference.pdf

¹ Seder, Leonard A., "A New Science of Trouble Shooting", *Industrial and Engineering Chemistry*, September 1951, Vol. 43, No. 9

Allen, John R., "Three Good Questions (and One Not So Good), *The New Science of Fixing Things*, 2006,
www.tnsft.com

Leonard A. Seder, "Diagnosis With Diagrams – Part I", *Industrial Quality Control*, January 1950, pp. 11-19

Leonard A. Seder, "Diagnosis With Diagrams – Part II", *Industrial Quality Control*, March 1950, pp. 7-11

Robert D Zaciewski and Lou Nemeth, "The Multi-Vari Chart: An Underutilized Quality Tool", *Quality Progress*, October 1995, pp. 81-83

Pease, Bob, "What's all this Statistical Stuff, Anyhow?", *Electronic Design*, March 1991
<http://electronicdesign.com/archive/whats-all-statistical-stuff-anyhow>

Perrin Stryker, "Can You Solve This Problem?", *Harvard Business Review*, May-June 1965.

Perrin Stryker, "How To Analyze That Problem", *Harvard Business Review*, July-August 1965.

Books

Gano, Dean, *Apollo Root Cause Analysis - A New Way Of Thinking*, Apollonian Publications, Distributed by BookMasters, Inc., 1999

Steiner, Stefan H., MacKay, R. Jock, *Statistical Engineering: An Algorithm for Reducing Variation in Manufacturing Processes*, ASQ Quality Press, 2005.

J. M. Juran and Frank M. Gryna, *Juran's Quality Control Handbook*, pp. 22.47-22.48, Fourth Edition, McGraw-Hill, 1988

Charles Higgins Kepner, Benjamin B. Tregoe, *The New Rational Manager*, Princeton Research Press, 1981

Mario Perez-Wilson, *Multi Vari – A Pre-Experimentation Technique*, Advanced Systems Consultants, 1992

DIAGNOSTIC STUDY DESIGNS

Articles

De Mast, Jeroen and Tripp, Albert, *“Exploratory Analysis in Quality Improvement Projects”*, *Journal of Quality Technology*, Vol. 39, No. 4, October 2007

Beachell, E. J. and M. Monda. 1991. *“A Primer For Enumerative vs. Analytic Studies: Using Caution In Statistical Inferences”*. ASQC Statistics Division Newsletter, Vol 16. No 3. Pp 6-10.

<http://asq.org/statistics/2010/09/statistics/a-primer-for-enumerative-vs-analytic-studies-.pdf>

Leonard A. Seder, *“Diagnosis With Diagrams – Part I”*, *Industrial Quality Control*, January 1950, pp. 11-19

Leonard A. Seder, *“Diagnosis With Diagrams – Part II”*, *Industrial Quality Control*, March 1950, pp. 7-11

Snee, Ronald, D., *“My Process is Too Variable – Now What?”*, *Quality Progress*, December 2001

de Mast, Jeroen, Roes, Kit C. B., Does, Ronald J. M. M., *“The Multi-Vari Chart: A Systematic Approach”*, *Quality Engineering*, 13(3), pp437-447, 2001

Robert D Zaczewski and Lou Nemeth, *“The Multi-Vari Chart: An Underutilized Quality Tool”*, *Quality Progress*, October 1995, pp. 81-83

Bisgaard, Søren, *Quality Quandaries, “The Importance of Graphics in Problem Solving and Detective Work”*, CQPI report No. 137, February 1996

Campbell, Donald T., Ross, H. Laurence, *“The Connecticut Crackdown of Speeding, Time-Series Data in Quasi-Experimental Analysis”*, *Law and Society Review*, Vol. 3, No. 1 (Aug., 1968), pp.33-54, Blackwell Publishing

de Mast, Jeroen, Kemper, Benjamin, P. H., *“Principles of Exploratory Data Analysis in Problem Solving: What Can We Learn from a Well-Known Case?”*, *Quality Engineering*, 21: pp. 366-375, 2009

Tukey, John W., *“A Quick, Compact, Two Sample Test to Duckworth’s Specifications”*, *Technometrics*, vol. 1, February 1959, pp. 31-48.

Gans, D. J. (1981), *“Corrected and Extended Tables for Tukey’s Quick Test”*, *Technometrics*, 23, pp 193-195

Westlake, W.J. (1971), *“A One-Sided Version of the Tukey-Duckworth Test”*, *Technometrics*, 13, p 901-903

Gigerenzer, Gerd, Kraus, Stefan, Vitouch, Oliver, "The Null Ritual – What you Always Wanted to Know About Significance Testing but Were Afraid to Ask", Published in: D. Kaplan (Ed.). (2004). *The Sage handbook of quantitative methodology for the social sciences* (pp. 391–408). Thousand Oaks, CA: Sage 2004 Sage Publications.

https://www.researchgate.net/publication/241372934_The_Null_Ritual_What_You_Always_Wanted_to_Know_About_Significance_Testing_but_Were_Afraid_to_Ask

Carver, Ronald P., "The Case Against Statistical Significance Testing" *Harvard Educational Review*, Vol. 48, Issue 3, pp. 378-399, 1978 <http://healthyinfluence.com/wordpress/wp-content/uploads/2015/04/Carver-SSD-1978.pdf>

Johnson, Douglas H., "The Insignificance or Statistical Significance Testing", *Journal of Wildlife Management*, 63(3): pp. 763-772
<https://digitalcommons.unl.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1225&context=usgsnpwrc>

Cohen, Jacob, "The Earth is round ($p < .05$)", *American Psychologist*, December 1994, Vol. 49, No. 12, pp. 997-1003 http://ist-socrates.berkeley.edu/~maccoun/PP279_Cohen1.pdf

Rozeboom, William W., "The Fallacy of the Null-Hypothesis Test", *Psychological Bulletin*, 57, pp. 416-428, 1960 <http://stats.org.uk/statistical-inference/Rozeboom1960.pdf>

Sterne, Jonathan A. C., Smith, George Davey, "Sifting the Evidence – What's Wrong with Significance Tests?", *BMJ, Education and debate*, Vol. 322, January 2001

Ott, Ellis R., "A Production Experiment with Mechanical Assemblies", *Industrial Quality Control*, Vol. 9, No. 6, May 1953, pp. 124-130

Ott, Ellis R., Schilling, Edward G., "A Problem in a High-speed Assembly Operation (Broken Caps)", *Process Quality Control*, Second Edition, McGraw-Hill, 1975, pp.130-135

Ott, Ellis R., "Analysis of Means – A Graphical Procedure", *Journal of Quality Technology*, vol. 15, No. 1, January 1983.

"Analysis of Means" Prentice Hall, David Levine
http://wps.prenhall.com/wps/media/objects/9431/9657451/Ch_11/levine-smume6_topic_ANOM.pdf

Books

Moen, R.D., T.W. Nolan and L.P. Quality improvement Through Planned Experimentation. 2nd edition. 1998. McGraw-Hill, New York.

Mosteller, F. and Tukey, J. W.: 1977, *Data Analysis and Regression*, Addison-Wesley Publishing Co., Reading, MA

MEASUREMENT SYSTEMS ANALYSIS II

Articles

Wheeler, Donald J., Is the Part in Spec?, "*Quality Digest*", June, 2010

<https://www.qualitydigest.com/inside/metrology-column/part-spec-060110.html>

Statistical Process Control (SPC)

Articles

The Red Bead Game

<http://nationalqualitycenter.org/files/nqc-game-guide-chapters/01-red-bead-game/>

Prevette, Steven, "*Liars Figure and Figures Lie*", ASQ Newsletter October 1999. Copy provided via Elsmar Cove Quality Forum by Steve Prevette.

Wheeler, Donald J., "*Myths About Shewhart's Control Charts*", SPC Tool Kit column, Quality Digest, September, 1996 <http://www.qualitydigest.com/sep96/spctool.html>

Wheeler, Donald J., "*Myths about Process Behavior Charts*", Quality Digest September, 2011 <http://www.qualitydigest.com/inside/quality-insider-article/myths-about-process-behavior-charts.html>

Udler, David and Zaks, Alex, "*Statistical Political Correctness*", Quality Digest, November, 1997

Woodall, William H., et. al, "*Controversies and Contradictions in Statistical Process Control*" and Discussions, Journal of Quality Technology. Vol. 32, No. 4, October 2000

Wheeler, Donald, J., "*Foundations of Shewhart's Charts*", SPC Tool Kit column, Quality Digest, October, 1996 <http://www.qualitydigest.com/oct96/spctool.html>

Wheeler, Donald J., "*The Empirical Rule*", Quality Digest, March 2018 <https://www.qualitydigest.com/print/31299>

Wheeler, Donald, "*When Should We Compute New Limits?*" Quality Digest, April 2, 2012, www.spcpress.com/pdf/DJW241.pdf

Hare, Lynn, "*SPC: From Chaos to Wiping the Floor*", Quality Progress, July 2003 <http://library.certh.gr/libfiles/PDF/GEN-PAPYR-1480-SPC-FROM-CHAOS-by-HARE-in-QUALITY-PROG-V-36-ISS-7-PP-58-63-Y-2003.pdf>

Western Electric, "Statistical Quality Control Handbook", 1956, 2nd Edition, 10th Printing, May 1984, Part B, pp. 23-30 and Part F, pp. 149-183 http://www.contesolutions.com/Western_Electric_SQC_Handbook.pdf

Lloyd S. Nelson, "*Technical Aids*," Journal of Quality Technology vol. 16, no. 4 (October 1984), pp.238-239

Westgard, J.O., P.L. Barry, and M.R. Hunt (1981). "*A Multi-rule Shewhart Chart for Quality Control in Clinical Chemistry*", Clinical Chemistry, vol. 27, pp. 493-501

Wheeler, Donald, "*The Levey-Jennings Chart*", Quality Digest, February, 2016 <https://www.qualitydigest.com/inside/statistics-column/020116-levey-jennings-chart.html#>

Wheeler, Donald, "*The Right and Wrong Ways of Computing Limits*", Quality Digest, January 2010 <https://www.qualitydigest.com/inside/six-sigma-column/right-and-wrong-ways-computing-limits.html>

Wheeler, Donald, "*Good Limits from Bad Data I*", Quality Digest, March 1997 <http://www.qualitydigest.com/march97/html/spctool.html>

Wheeler, Donald, "Good Limits from Bad Data II", Quality Digest, April 1997

<http://www.qualitydigest.com/april97/html/spctool.html>

Wheeler, Donald, "The Empirical Rule of Distributions", Quality Digest, March, 2018

<https://www.qualitydigest.com/inside/statisticscolumn/empirical-rule-030518.html>

McGue, Frank; Ermer, Donald S., "Rational Samples – Not Random Samples", Quality Magazine, December 1988

Wheeler, Donald, "What is a Rational Subgroup?", Quality Digest, October 1997

<http://www.qualitydigest.com/oct97/html/spctool.html>

Wheeler, Donald, "Rational Subgrouping", Quality Digest, June 2015

<http://www.qualitydigest.com/inside/quality-insidercolumn/060115-rational-subgrouping.html>

Wheeler, Donald, "Rational Sampling", Quality Digest, July 2015

<https://www.qualitydigest.com/inside/statistics-column/rational-sampling-070115.html>

Wheeler, Donald, "Good Limits from Bad Data Part III", Quality Digest, May 1997

<http://www.qualitydigest.com/may97/html/spctool.html>

Wheeler, Donald, "The Chart for Individual Values",

https://www.iienet2.org/uploadedfiles/IIE/Education/Six_Sigma_Green_Belt_Transition/The%20Chart%20For%20Individual%20Values.pdf

Keen, Joan, Page, Denys J., "Estimating Variability from the Differences Between Successive Readings", Journal of the Royal Statistical Society, Series C (applied Statistics), Vol. 2, No. 1, March, 1953, pp 13-23

<https://www.jstor.org/stable/2985323>

Kamat, A. R., "On the Mean Successive Difference and Its Ratio to the Root Mean Square", Biometrika, Jun, 1953, Vol. 40, No. ½, pp.116-127

<https://www.jstor.org/stable/2333103>

Wheeler, Donald J., "A History of the Chart for Individual Values, The ultimate in homogenous subgroup", Quality Digest July 2017

<https://www.spcpress.com/pdf/DJW317.Jul.17.History%20of%20XmR%20Chart.pdf>

Sarkar, Ashok; Pal, Surajit, "Process Control and Evaluation in the Presence of Systematic Assignable Cause", Quality Engineering, Volume 10(2), 1997-1998.

Wheeler, Donald, "Can I Have Sloping Limits?", Quality Magazine, May 1999

<https://elsmar.com/elsmarqualityforum/attachments/can-i-have-sloping-limits-doc.2845/>

Selden, Paul H., "Using SPC to Cure Sales Heartburn", SPC INK, 1999 #1

<http://www.spcpress.com/pdf/other/Selden.pdf>

Turk, Nicholas, J., "Charting Individuals for a Truncated Distribution, Quality, pp. 81, June 1988

Wheeler, Donald, *"The Three-Way Chart"*, Quality Digest, March 2017

<http://www.qualitydigest.com/inside/statistics-column/three-way-chart-030617.html>

Pyzdek, Thomas, *"SPC Guide, Median Control Charts"*, Quality Digest December 1998

<http://www.qualitydigest.com/dec98/html/spctool.html>

Van der Veen, John, Holst, Perry, *"Median/Individual Measurements Control Charting and Analysis for Family Processes"*, NWA resources white paper, <https://www.nwasoft.com/resources/information-center/white-paper/medianindividual-measurements-control-charting-and-analysis>

Wheeler, Donald, *"The Three-Way Chart"*, Quality Digest, March 2017

<http://www.qualitydigest.com/inside/statistics-column/three-way-chart-030617.html>

Maness, Thomas C., Kozak, Robert A., Staudhammer, Christina, *"Applying Real-Time Statistical Process Control to Manufacturing Processes Exhibiting Between and Within Part Size Variability in the Wood Products Industry"*, Quality Engineering, Vol. 16, No. 1, pp. 113-125, 2003-2004

Cheek, C. H., Ziqiang, John Mao, *"A Solution for an Effective Excursion Triggering System for Continuous Flow Manufacturing"*, Intel Internal Publication, October 1999.

Goh, T. N., *"A Statistical Procedure for Defect Control in High Quality Manufacturing"*, Sensors Controls and Quality Issues in Manufacturing, ASME 1991, pp395-401.

Wheeler, Donald, *"What About p-charts?"*, <http://www.qualitydigest.com/inside/quality-insiderarticle/what-about-p-charts.html>

Laney, David B., *"Improved Control Charts for Attributes"*, Quality Engineering, 14(4), 2002, pp. 531-537

Books

Shewhart, Walter A., *The Economic Control of Quality of Manufactured Product*, American Society for Quality, December 1980

Ishikawa, K. *Guide to Quality Control*, Asian Productivity Organization, Tokyo (1982)

Western Electric Statistical Quality Control Handbook, Western Electric Co. May 1984

Eugene L. Grant; Richard S. Leavenworth, *Statistical Quality Control*, Sixth Edition, McGraw-Hill, 1988

Westgard, J.O., P.L. Barry, *Cost-Effective Quality Control: Managing the Quality and Productivity of Analytical Processes*, AACC Press, 1986

Wise, Stephen A.; Fair, Douglas, C., *Innovative Control Charting*, ASQ Quality Press, 1998

Risk Assessment and FMEA

Articles

Bohn, Roger, "Stop Fighting Fires", *The Harvard Business Review*, July-August 2000

<https://hbr.org/2000/07/stop-fighting-fires>

Wheeler, Donald, "Problem with Risk Priority Numbers, More Mathematical Jabberwocky", *Quality Digest*, June 2011. <http://www.qualitydigest.com/inside/quality-insider-article/problems-risk-priority-numbers.html>

Youssef, Nataly F. and Hyman, William A., "Analysis of Risk: Are Current Methods Theoretically Sound? Applying risk assessment may not give manufacturers the answers they think they are getting", *Medical Device & Diagnostic Industry*, October 2009

<http://www.mddionline.com/article/analysis-risk-are-current-methods-theoretically-sound>

Flag, John, "Rethinking Failure Mode and Effects Analysis", *Quality Digest*, June 2015

<https://www.qualitydigest.com/inside/statistics-column/062415-rethinking-failure-mode-and-effects-analysis.html>

Crosby, David, "Words that Kill Quality and Spill Oil", *Quality Digest*, July, 2010

<https://www.qualitydigest.com/inside/twitter-ed/words-kill-quality-and-spill-oil.html>

Haynes, Alfred C., "United Flight 232: Coping with the 'One-in-a-Billion' Loss of All Flight Controls", *Flight Safety Foundation, Accident Prevention*, Vol 48. No. 6, June 1991.

https://flightsafety.org/ap/ap_jun91.pdf

Gonzales, Laurence, "The Final Flight of United 232", *Popular Mechanics*, May 5, 2014

<http://www.popularmechanics.com/flight/a10478/thefinalflightofunited23216755928/>

Imran, Muhammad, "The Failure of Risk Management and How to Fix It", Book Review, *Journal of Strategy & Performance Management*, 2(4), 2014 pp. 162-165

<http://jspm.firstpromethean.com/documents/162-165.pdf>

"United Airlines Flight 232 FAA Lessons Learned"

https://lessonslearned.faa.gov/ll_main.cfm?TabID=3&LLID=17&LLTypeID=2

Travis, Gregory, "How the Boeing 737 MAX Disaster Looks to a Software Developer", *IEEE Spectrum*, April 18, 2019 Updated February 3, 2024, <https://spectrum.ieee.org/how-the-boeing-737-max-disaster-looks-to-a-software-developer>

Books

Hubbard, Douglas W., *The Failure of Risk Management; Why It's Broken and How to Fix It*, John Wiley and Sons, 2009

Taleb, Nassim Nicholas, *The Black Swan: The Impact of the Highly Improbable*, Random House Trade Paperbacks, May 2010

Robison, Peter, *Flying Blind: The 737 MAX Tragedy and the Fall of Boeing*, Doubleday, November 30, 2021

Brown, Brandon R., *The Apollo Chronicles: Engineering America's First Moon Missions*, Oxford University Press, June 7, 2019

Process Capability (C_p / P_p)

Articles

Sullivan, L. P., "Reducing Variability: A New Approach to Quality", Quality Progress, July 1984 and "Letters" Quality Progress, April, 1985

Gunter, Berton H., "The Use and Abuse of C_p ", Statistics Corner, Quality Progress, Part 1 January 1989, Part 2 March 1989, Part 3 May 1989, Part 4 July 1989 <https://asq.org/quality-progress/articles/column-statistics-corner-the-use-and-abuse-of-cpk-parts-14?id=4a37bc559698426f8543d26330fa5176>

Pignatiell, Joseph J. Jr., Ramberg, John S., "Capability Indices: Just Say "NO!""", ASQC Quality Congress Transactions – Boston, 1993

Leonard, James, "I Ain't Gonna Teach It", Process Improvement Blog, 2013
<http://www.jimleonardpi.com/blog/i-aint-gonna-teach-it/>

Nelson, Peter R., Editorial, Journal of Quality Technology, Vol. 24, No. 4., October, 1992 Issue devoted to Process Capability Indices

Taguchi, Genichi, Clausing, Don, "Robust Quality", Harvard Business Review, January-February 1990.
<https://hbr.org/1990/01/robust-quality>

Barsalou, Matthew, "The Legacies of Genichi Taguchi", Quality Digest, March 2013
<http://www.qualitydigest.com/inside/quality-insider-article/legacies-genichi-taguchi.html#>

Internal Ford Video "Continuous Improvement in Quality and Productivity" produced by Radio, TV, and Public Affairs Staff, Ford Motor Company, Dearborn, MI (1987).
<https://www.youtube.com/watch?v=uAfUOfSY-S0>

Acceptance Sampling (aka Inspection and Test Sampling Plans)

Articles

Wheeler, Donald J., "The Truth About Acceptance Sampling, Part 1, What can you say about this lot?", Quality Digest, July 2014

<https://www.qualitydigest.com/inside/six-sigma-column/truth-about-acceptance-sampling-part-1-070214.html>

Wheeler, Donald J., "The Truth About Acceptance Sampling, Part 2, How to avoid asking the wrong question?", Quality Digest, August 2014

<https://www.qualitydigest.com/inside/six-sigma-column/truth-about-acceptance-sampling-part-2-080414.html>

Maciulla, Joe, "Acceptance Sampling? The Enterprise Strikes Back! AS9100 c=0 Plans; When Slogans Supplant Science", Quality Engineering 18:237-266 2006

Rigdon, Steven, "Mood's theorem, Deming's kp Rule and the Death of Acceptance Sampling", Quality Engineering, 8(1), 129-136 1995-96

Design a Sampling Plan, Tim Folkert, posted in "Sampling Spreadsheet to help determine the Sample Size for Sampling Plans" thread at the Elsmar Quality Forum:

<http://elsmar.com/Forums/showthread.php?t=12836>

Books

Also Known as Sam Poisson, John Heldt, Hitchcock Publishing Company (1985)

Acceptance Sampling in Quality Control, Edward G. Schilling, Dean V. Neubauer, Chapman and Hall/CRC (2009)

Reliability Statistics, Robert A. Dovich, American Society for Quality Control, 1990