



Greater El Paso
Section

Amigo Quality

Volume 28 Number 2

Welcome to the November 2007 issue of the Newsletter! Your local provider of information and learning opportunities related to quality professionals.

MEMBERSHIP MEETING

LOCATION: Home Town Buffet 9120 Viscount Blvd ([Map](#))

REGISTRATION & SOCIAL HOUR: 6:15 pm

DATE: November 14, 2007

SPEAKER: Dr. Alex Ruiz Torres

TOPIC:

MEETING IS FREE FOR EVERYBODY (MEMBERS OR NON-MEMBERS) AND THE SPEAKER STARTS AT 6:45 P.M.

If you want to eat, we start our social hour at 6:15 p.m.

DINNER COST: \$10.00

THE CHAIR SPEAKS

ALFONSO ENRIQUEZ

Current body of knowledge for the quality engineer certification does not include Multi variable charts. Kai Yang and Jayant Trewn (2004) start the first chapter of their book stating that; "The word multi variable non only means many variables but also means that these variables might be correlated".

A certified quality Engineer using uni variable methods might obtain the wrong conclusions, when the variables are correlated. Kramer and Jensen (1969) present an example related to a steel manufacturer, which illustrates this point. In the example: "The manufacturer wished to determine whether the temperature at rolling had any effect at yield point and ultimate strength". By using the bi variable statistic T squared the conclusion is that there was a significant impact of the temperature, on the contrary by using independent uni-variable t test the conclusion was that the impact of the temperature was not significant.

The yield and tensile strength test is performed every day in every lot by the steel recycling plant in El Paso, Texas. You might also find opportunities in your plant.

Mason and Young (2002) offer a good explanation of the T squared statistic, known as Hotelling's T, and provide a demo disk of software used in multi variable analysis.

Salah Bouhouche and others (2007) explain that modern controlling and computer methods provide huge amount of data and ability to analyze information that it was not possible in the past. They present an application of the T squared statistic in the continuous casting of the steel combined with an application of fuzzy sets to take decisions in real time on the quality of the steel being produced. The continuous casting process they describe is an every day activity at the steel recycling plant in El Paso, Texas; therefore there is an opportunity to take advantage of these techniques.

You might be able to find applications for multi variable charts in your plant.

Kai Yang and Jayant Trewn, *Multivariate Statistical Methods in Quality Management*. Mc. Graw Hill, 2004

Kramer, C.Y. and Jensen D.R. "Fundamentals of Multi Variate Analysis, Part II, Inference about two treatments. *Journal of Quality Technology*. Vol 1 No 3, July 1969 pp 189- 204

Mason, R.L. and Young, J.C "Multivariate statistical control with Industrial Applications" Salah Bouhouche, S, Lahreche, M.

Moussaour, A., and Bast J. "Quality Monitoring using principal component analysis and Fuzzy logic application in Continuous Casting". *American Journal of Applied Science*. 4(9), pp 637 –644 2007.

AUTOMOTIVE SECTION

HECTOR LUGO

After talking to several experts in Asia, the following is what they told is the most important: "Honda Motor Co. is celebrating the 25th anniversary of building its first vehicle (Accord) in its plant in Marysville, Ohio, built fewer than 1,000 cars in 1982, and were the first Japanese automaker which opened a U.S. plant. Honda's six North American assembly plants are scheduled to exceed 1.6 million vehicles in 2008 with an investment of nine billion dollars."

"Toyota Motor Corp. marks its 50th year of doing business in the U.S. It opened its first sales office in 1957 and sold 288 vehicles the next year. Last year, Toyota sold more than 2.5 million vehicles in the

U.S. and began building cars in the U.S. in 1986.

Toyota developed its new long-term Toyota Global Vision 2020. They had worked out this new long-term vision to be in time for its 70th anniversary to establish them as the global No. 1 automaker.”

Only time will tell!

EDUCATION SECTION

Kim Pries

Which tool is one of the most powerful in our counterattacks on warranty parts (i.e., reliability)? The Weibull plot? The R/100 chart beloved by automotive suppliers? A run chart?

I would like to suggest that the single most effective tool is the simple Pareto chart! The way I have seen it work best goes as follows:

- Review data from parts or analyze actual parts
- Divide data into types of failures
 - Design
 - Manufacture
 - Supplier
 - Customer
 - Unknown
- Cascade from these five into more Pareto charts
 - Most common specific failure
 - Next most common specific failure
 - Nth most common specific failure
- Begin to resolve the heavy hitters
- Pick up light hitters when they are low-hanging fruit
- Implement design changes and process changes.

Now watch the warranty dollars begin to decline. Please note that design issues are the most difficult to resolve but frequently the most expensive returns. Do not automatically assume that all problems come from manufacturing issues.

I have seen this simple approach cut product warranty in half. The rigorous use of the Pareto chart works with services, too.

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RE-CERTIFYING AND ASQ CERTIFICATIONS

STEVEN SCHAFER

Out of a total of 9 member(s) whose certifications expired June

2007, 4 will lose their certifications if they do not re-certify by the end of December 2007, 0 member(s) re-certifications are being processed and 5 member(s) completed their re-certifications.

Out of a total of 8 member(s) whose certifications will expire December 2007, 7 will lose their certifications if they do not re-certify by the end of June 2008, 0 member(s) re-certifications are being processed and 1 member(s) completed their re-certifications.

Members can re-certify early! As long as you have enough points to re-certify early, you can. Your Certifications will be extended 3 years beyond the certification expiration date you currently have for your certification. So you don't lose anything by re-certifying early. Out of a total of 12 member(s) whose certifications will expire June 2008, 12 will lose their certifications if they do not re-certify by the end of December 2008, 0 member(s) re-certifications are being processed and 0 member(s) completed their re-certifications.

If anyone has questions on how to re-certify to extend their ASQ Certifications and/or how to synchronize them if they have more than one, please let me know. Re-certifying by exam now costs more money, since the prices went up January 2005 and is a lot more difficult than re-certifying. You can reach me, the Re-Certification Chair, at 915-612-7392 during working hours and at 915-584-0033 after hours. Both numbers have answering machines and if I don't answer, I will call you as soon as I can. You can also reach me via the Internet at spikequate@sbcglobal.net. I am ready to help with any questions you might have about Re-Certifying or about any ASQ Certifications you might have, call me. The Re-Certification Journal is at the following link and will guide you in the re-certification process <http://www.asq.org/certification/recertification/rucredits/index.html>.

Potential meeting and dinner schedule

YEAR	MONTH	DAY	TOPIC	LOCATION
2007	November	14	Alex Ruiz-Torres	Home Town Buffet
2007	December	12	Choir	Jack's School
2008	January	16	El Paso's Future by Hispanic Chamber of Commerce	TBD
2008	February	20	Speak from Santa Fe on Auditing	TBD
2008	March	21	ASQ Regional Director	TBD
2008	April	16	NMSU on organization	Las Cruces (Mesilla)
2008	May	21	ASQ El Paso's Chair report & new chair	TBD
2008	June	21	Family Picnic	TBD

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