



Greater El Paso
Section
The Global Voice of Quality™

Amigo Quality

Volume 39 Number 11

Welcome to the August 2019 issue of the Newsletter, your local provider of information and learning opportunities related to quality professionals.

Notice: The section is actively looking for volunteers willing to serve on the leadership committee. If you are willing to volunteer, please send an email letting us know your willingness to serve to Officers@asq1401.org with a subject of "Willing to serve on the leadership committee."

General Membership Meeting

DATE: Wednesday, August 21, 2019
SCHEDULED TIME: 6:30 P.M to 8:00 PM
LOCATION: Hilton Garden Inn at University Ave.
SPEAKER: Roger Tonneman
TOPIC: Quality in Semiconductor Manufacturing

THE CHAIR SPEAKS
EVARISTO CAMPOS-TORRES

Hello, Fellow Quality Professionals!

I hope everyone is doing well.

In June, we had Mr. Lonnie Wilson as our guest speaker. He talked about "Sustaining Workforce Engagement to ensure employees are healthy, happy, and productive." Those who attended had a very good experience. I wanted to take the time to thank Mr. Wilson for sharing with us his knowledge and passion for quality and continuous improvement.



Here is Mr. Lonnie Wilson receiving an appreciation award from ASQ El Paso.

This month we will be honored of having Mr. Roger Tonneman as our guest speaker. He will talk about his experience in the semiconductor manufacturing industry. I'm sure we will have a very interesting meeting and will allow us to learn from a seasoned professional in this industry.

I hope to see you there on August 21!

Best regards,

Evaristo Campos-Torres

Chair, ASQ Greater El Paso Section 1401

AUTOMOTIVE SECTION

HECTOR LUGO

Thank you to all participants on this exciting field and the “winner” for this month is: Picture a hybrid-electric truck that draws power, like a trolley, from overhead wires but without a fixed route

determined by restrictive rails embedded in the road. That, in a nutshell, is a system developed by Siemens that's been put into operation on 10 km (6.2 miles) of the A5 autobahn between the Frankfurt Airport and the Darmstadt/Weiterstadt interchange. It's the first such test on a public road in Germany.

Combining the efficiency of electric rail with the flexibility of conventional road trucking, the system, called eHighway, allows trucks with special equipment mounted on their roofs to connect to electrified lines while traveling at speeds of up to 90 km per hour. When connected to the overhead lines, the trucks run on electric motors. When they return to a traditional road, a hybrid system is used. Sensors detect when the overhead wires are available.

See you at the meeting!

EDUCATION SECTION

KIM PRIES

In June of this year, I used the word *placebo* without much comment from anybody. In research, we use placebos to ascertain, most commonly, whether a new drug treatment has any efficacy over something like a sugar pill. The placebo concept *per se* emerged during World War II when Henry Beecher ran out of morphine and achieved the same pain-killing effect using a simple saline solution! Theorists maintain the wounded soldiers managed their pain with internal endorphins or simply with the power of belief. Frequent comments sound like this: "Oh, it's just a placebo."

In the case of medical treatment, "just a placebo" doesn't cover the topic. The real question is, why does "belief" work at all? The placebo effect merits more study, not just as a gatekeeper for medications, but also in its own right.

However, we also see placebos in the real world, and these are sometimes innocuous and sometimes just a waste of time. Real-world placebos can take the form of close-door buttons on an elevator and cross-street buttons on traffic lights. Where they exist, they cause little harm and provide some satisfaction for the impatient.

When we use a quality tool, a lean tool, a Six Sigma approach, or a “quality system,” I would expect the purveyors of these items to be able to produce data indicating a reasonable effect size. An example of doing this right is the research work of John Hattie, who did a comparative analysis of research on education topics. Hattie set a breakpoint at an effect size of 0.41 (~16% improvement) since many of the recommendations in the education arena are little more than fruitless placebos that waste student and teacher time. Please note that Hattie took this work very seriously, with 800+ meta-analyses and over 200,000,000 students!! Also, we have the government-supported What Works Clearinghouse (WWC) which investigates the quality of research for a variety of “programs.” I can point to at least one that fails the WWC criteria due to poor research quality and conflicts of interest, yet many of the local districts still pay for this program.

Always consider effect size. Yes, I know science is not everything, but in the quality field, it makes a lot of sense to expect our tools actually to do something rather than be simply cognitively satisfying.

Note: Alfonso’s study does one of the most important steps in data analysis—he made a graph of the data (love it!!!)! At one company where I worked, I regularly had to send work back because people didn’t LOOK at their data.

Check it out!

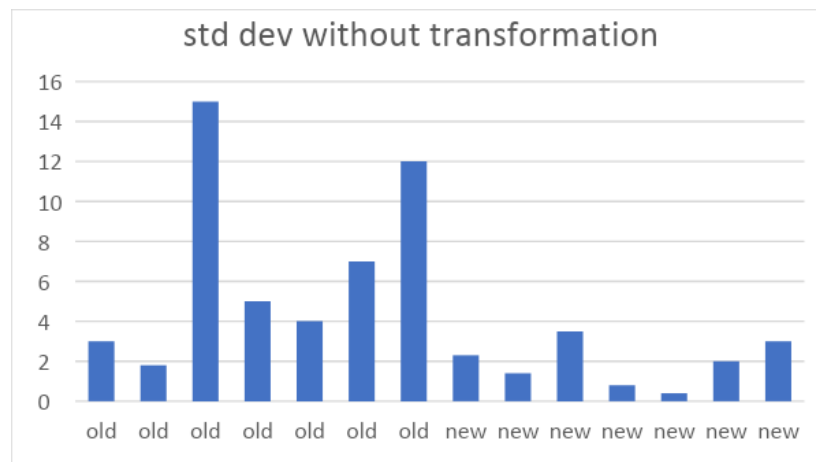
MANAGEMENT SYSTEMS

ALFONSO ENRIQUEZ

Ran Jin et al¹ say, “In many manufacturing processes equipment reliability plays a crucial role for product quality assurance.”

On a related topic, we have a machine that pulls the extruded plastic web; we call it web puller. But we have two types of machines: one that is old and has a powerful motor, and one that is new that has a servo motor. Those motors turn rollers to move the web between the rollers.

We noticed we have some variation in the size of the slug or space between product in the web, we collected 25 data for different part numbers, we calculated the mean, and standard deviation, since we are interested in the variation, we wanted to make a comparison of variation between the old and the new web puller:



You can tell visually that the old equipment has more variation than the new; however, we want to prove it with statistics, so we ran a t-test in Excel:

t-Test: Two-Sample Assuming Unequal Variances		
	Variable 1	Variable 2
Mean	6.828571429	1.914286
Variance	24.13904762	1.274762
Observations	7	7
Hypothesized Mean Difference	0	
df	7	
t Stat	2.579137745	
P(T<=t) one-tail	0.01825909	
t Critical one-tail	1.894578605	
P(T<=t) two-tail	0.03651818	
t Critical two-tail	2.364624252	

We concluded: the old equipment creates more variation. We repeated the analysis with $\ln(sd)$, and the p-value was even lower.

¹Ran Jin, Xinwei Deng, Xiaoyu Chen, Liang Zhu & Jun Zhang (2019) Dynamic quality-process model in consideration of equipment degradation, Journal of Quality Technology, 51:3, 217-229, DOI: [10.1080/00224065.2018.1541379](https://doi.org/10.1080/00224065.2018.1541379)

RE-CERTIFYING AND ASQ CERTIFICATIONS

STEVEN SCHAFER

Out of a total of 10 member(s) whose certifications will expire June 2019, two will lose their certifications if they do not re-certify by the end of December 2019, one member(s) re-certifications are being processed, and seven member(s) completed their re-certification.

Out of a total of 5 member(s) whose certifications will expire December 2019, four will lose their certifications if they do not re-certify by the end of June 2020, 0 member(s) re-certifications are being processed, and one member(s) completed their re-certification.

Out of a total of 9 member(s) whose certifications expired June 2020, nine will lose their certifications if they do not re-certify by the end of December 2020, 0 member(s) re-certifications are being processed, and four member(s) completed their re-certification.

Members can re-certify early! As long as you have enough points, you can re-certify as early as six months before your certification expires. Your Certifications will be extended three years beyond the certification expiration date you currently have for your certification, so you don't lose anything by re-certifying early. Remember, you can only claim points that you have accumulated up to the time you submit, and these points need to be collected during your three-year certification period. Out of a total of 6 member(s) whose certifications will expire December 2020, six will lose their certifications if they do not re-certify by the end of June 2021, 0 member(s) re-certifications are being processed, and 0 member(s) completed their re-certification.

If anyone has questions on how to re-certify to extend their ASQ Certifications and how to synchronize them if they have more than one, please let me know. Re-certifying by exam costs more and is a lot more difficult than re-certifying through the accumulation of RU points. You can reach me, the Re-Certification Chair, at 915-241-4780 or (501) 615-8170. Please leave a message on the answering machine if no one answers and I will call back 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
<https://asq.org/cert/recertification> .

When re-certifying, **always get the most recent Re-certification Journal information**. The lasted Re-Certification Journal is November 2018. For ASQ members the fee for one certification is \$69.00 and for two or more \$89.00; for non-members the fee for one \$109.00 and two or more \$109.00 each).

Projected Events					
2019	Month	Date	Day	Event	Location
	August	21	Wednesday	General Membership Meeting	Hilton Garden Inn - UTEP 111 W. University Ave.
	September	4	Wednesday	Leadership Committee Meeting 6:30 pm	Good Coffee Restaurant 6101 Montana Ave. 79925
	September	18	Wednesday	TBD	TBD

2019 Officers/Committee Chairs

<p>Chair: Evaristo Campos-Torres Work Phone: (915) 860-6287 Cell Phone: (915) 929-3142 e-Mail: evaristo.campostorre@dish.com</p>	<p>Vice-Chair – Auditing Chair: Mark Aldred Phone: (575) 343-2182 e-Mail: aldredAerospace@gmail.com</p>
<p>Treasurer: Rebecca Diaz Cell Phone: (915) 321-0279 e-Mail: rbkgomez@yahoo.com</p>	<p>Internet Liaison: Jack Vaughn Home Phone: (915) 594-6662 Cell Phone: (915) 549-2014 e-Mail: jvaughn@utep.edu</p>
<p>Secretary: Keith Fong Home Phone: (915) 351-7535 Work Phone: (915) 612-7147 e-Mail: fongk@asme.org</p>	<p>Newsletter: Kim Pries Phone: (915) 525-1724 e-Mail: jpries1@elp.rr.com or khpries@gmail.com</p>
<p>Immediate Past Chair – Nominations Chair Sergio R. Vega Work Phone: (915) 860-6257 Cell Phone: (915) 276-1130 e-Mail: sergio.vega@dish.com</p>	<p>Refresher Classes/Workshops Chair: Hector Lugo Phone: (915) 208-2502 Home Phone: (915) 581-8091 e-Mail: h7tutor@hotmail.com</p>
<p>Membership Chair: Vacant Cell Phone: e-Mail:</p>	<p>Business Student Section: Vacant Cell Phone: e-Mail:</p>
<p>Publicity Chair: Morris Hendricks Phone: (419) 769-0121 e-Mail: Morrishe@aol.com</p>	<p>Partners In Education: Vacant Cell Phone: e-Mail:</p>
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