Greater El Paso Section
ASQ — The Global Voice of Quality™

Welcome to the May 2016 issue of the Newsletter, your local provider of information and learning opportunities related to quality professionals.

Membership Meeting

LOCATION:
Hilton Garden Inn El Paso/University
111 W. University Ave.
Direct Phone: 915.351.4902
Main Phone: 915.351.2121

SCHEDULED TIME: 6:30 pm – 8:15 pm Program begins at 6:30 pm
DATE: Wednesday, May 18, 2016

PROGRAM: "Applying Lean Principles to Design a Winning Value Proposition"

SPEAKER: Hector Lopez

BIO: Mr. Lopez has extensive experience doing project work in industries such as automotive, healthcare, electronics, aerospace, semiconductor, consumer products, contract manufacturing, sealing and protection, metal forming and machining industries. He has worked in lean manufacturing transformation projects as well as in the implementation of quality management systems including MIL-Q-8958, AS9100, MIL-I-45208, QS-9000, ISO-9001, and TS-16949. He has directed manufacturing operations in both the USA and Mexico and is a bilingual professional who strives to help small and mid-market companies set their distinctive competencies to improve their competitiveness and positioning in the marketplace.

Leadership Committee Planning meeting
SCHEDULED TIME: 9:00 AM – 10:30 AM

DATE: Saturday, May 21, 2016
at United Blood Services
424 S Mesa Hills Dr, El Paso, TX 79912

MEETINGS ARE FREE FOR MEMBERS AND NON-MEMBERS ALIKE

THE CHAIR SPEAKS
Eli Gilbert

May is Here!!!

2016 marks the year of ASQ's 70th anniversary, isn't great to a part of an organization with such longevity in professionalism in quality? I want to extend sincere appreciation for guest speaker Dr. Timothy P. Roth and his wonderful presentation on "The Importance of Quality in Institutions". We had a great turn out!!!

Please join all the Greater El Paso members for Hector Lopez's knowledge on "Applying Lean Principles to Design a Winning Value Proposition" Wednesday May 18th. Also, take a look through our May newsletter as we announce Jaguar's exciting news, touch on metal models in respect to cognitive development, and organizational

knowledge in management systems. Take the time to check this information out. Also, please be aware of your recertification dates. Ensure you take advantage of these wonderful monthly training opportunities that give you Recertification Units to help keep you in compliance with ASQ standards. Don't let your hard earned certification expire.

 ASQ has an abundance of online resources to better serve quality professionals just like you. Everyone has the opportunity to consult this resource and it's also free for members, so don't hesitate to take a look.   www.asq.org

Sincerely yours,

Eli Gilbert

Elijah M. Gilbert
ASQ EL PASO 1401

UPDATE! UPDATE! UPDATE! Please note the **meeting location change** to the Hilton Garden Inn. Also, monthly meeting times will now be scheduled for the 3rd Wednesday of the month to allow for maximum participation.

FLASH! FLASH! FLASH! Leadership Committee meeting is scheduled this month on May 21, 2016

<u>AUTOMOTIVE SECTION</u>
HECTOR LUGO

Thanks to all members that contribute with their opinions, and the "winner" of this month is: Jaguar's first SUV, the F-Pace, will go

on sale in the U.S. next month and with the new little XE sedan, will fill in some big gaps in its market reach.

Jaguar decided to give its SUV a weird sounding name, F-Pace, but there is an element of logic to the choice. Jaguar says it reflects the link of design cues from the F-type sports car, and company founder William Lyons who once said that every Jaguar must combine Grace, Space and Pace.

Jaguar joins Maserati, Bentley, Aston Martin, Rolls Royce, Lamborghini and Maybach, famous sporty upmarket brands forced to admit that to survive and make money, they must grit their collective teeth and make small trucks, albeit fast, luxurious ones.

See you at the meeting!

EDUCATION SECTION
KIM PRIES

I think it is fair to say that the dominant education theory today is a philosophy known as "constructivism." The archetype of all constructivist thinkers is the late Jean Piaget. Piaget proposed many ideas, some of which have become sufficiently mainstream that most of us accept them as the way things are. For example, he proposed a means of acquiring information called "assimilation," that involves adding information to constructs we already have. In short, we match reality to the frame in our mental model. On the other hand, he proposed a second concept called accommodation, in which our new information no longer fits our mental model and we must "accommodate" in order to modify our model to fit a new constructed reality

How do assimilation and accommodation work with software development? Consider the training of new software developers. Think of your first class in programming. In most cases, I would suggest we were given a syntax and told to solve problems with that syntax after being shown some examples of its use. In my own, case I know that the semantics or meaning of the code was of less interest at the time. However, most of us know that assigning the right side of the equal sign to a variable name is really storing the result of the right side in a memory location What if we had learned from the beginning the term "binding," which is a more accurate description of what is actually going on?

It would seem ultimately counterproductive to teach students how to do mathematics with a program and then expose them to statements that are nonsensical in standard mathematics. At the risk of starting a language war, that is why I am sorry to see some prominent universities drop the use of Scheme or other LISP-related languages. In Scheme, binding is a bit more obvious than, say, Python. In Scheme, the language is overwhelming self-consistent, rather than looking bolted-together, as with Python. However, this would be true of any consistent syntax. If anybody thinks Python is consistent, let them explain the use of the "len" function to find the length of entities rather than using the object-oriented methods that hold for most of the other tools. I teach Python to students and every year I have to explain this inconsistency when students try to apply their newfound knowledge of methods to a string or a list. It is difficult to assimilate an inconsistent built-in function, thus requiring some level of accommodation in order to be successful.

Piaget also proposed different levels of cognitive development. For example, teenagers are most commonly at the level of concrete operational, whereas Many college students, although not all, are formal operational; that is, they are able to navigate abstractions reasonably handily. Some research indicates that only 35% of high school graduates are formal operational as seniors, suggesting a problem when they attempt to become software engineers at the university level.

When we hire software engineers (or other kinds), it would be wise to include some probes for problem-solving ability before making the offer. We have to remain cognizant of the strictures, at least in the United States, of the Supreme Court decision *in Griggs v. Duke Power Co.*, which did not allow discrimination through the use of testing by the employer if it were to the detriment of an historically oppressed category of people. However, it if can be show that our testing or probing is utterly germane to the execution of the job, then we have met the intent of the Griggs decision.

We are not trying to exclude any particular group, but rather, trying to ascertain competence to perform the tasks we desire.

We know this occurs regularly in the field of quality assurance because the American Society for Quality provides examinations for a variety of certifications. All states provide state board exams. We have requirements for engineers, accountants, lawyers, and doctors.

Hence, in software quality we want to select those individuals who have successfully developed through the waves of assimilation and accommodation to a point of being formal operational. These individuals should be able to prove competence without a hint of discrimination in violation of the law.

I once made the suggestion to a company of using a test for coding in the C language for screening applicants—you would have thought I suggested something socially disgusting. This company went on to hire several individuals who interviewed well but who could not perform the coding job competently.

My recommendation is that you review Griggs versus Duke Power before instituting a screening examination and then proceed once you are satisfied you are not guilty of discrimination. Chief Justice Warren Burger wrote, "Congress has placed on the employer the burden of showing that any given requirement must have a manifest relationship to the employment in question." I think we can do this ethically and appropriately and save ourselves the grief of hiring people not competent to the task.

Check it out!

MANAGEMENT SYSTEMS
ALFONSO ENRIQUEZ

Clause 7.1.6 of ISO 9001:2016 refers to Organizational Knowledge. An organization should maintain the knowledge; Biswas[1] recommends having a system to learn from experience.

We have to investigate the root cause of anomalies, and then determine actions to remove the root cause—if we just accumulate the anomaly report, that is a source for organizational knowledge.

However, when we have frequent anomaly reports that are not optimally written, there might be several reasons, one of which includes the language barrier: some of us (65%) in the plant where I

work have Spanish as our first language; some others were born in the US and are bilingual (34%), a few have English as their first language (1%).

There is a case where different people call the same object with a different name e.g. for mechanical parts bearing, choke, and pillow block; for electrical parts: Sensor, detector, laser, HMD.

I want to express this situation as a simple diagram:

| Lack of words in anomaly report | → | Sub optimal source of organizational Knowledge |
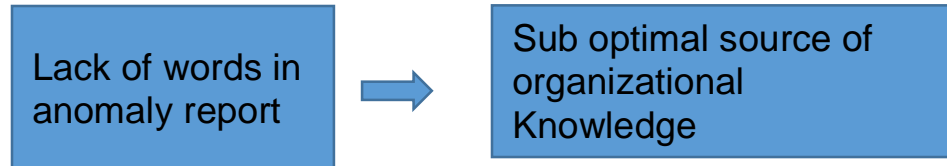
As long as the employees remain in their jobs, the knowledge stays with them, the problem is when they leave, their replacement have to start from zero, if the organizational knowledge is not well documented.

There is also lack of time to do the report, people sometimes consider that it is enough to fix the problem, and doing a report is not motivating for them.

As Kim[2] stated in his article about using tools such as the Ishikawa diagram; the tools effectiveness depends on the effort the teams put into their use. If the effort is not enough the organizational knowledge acquired is low.

We therefore have to improve the anomaly reports, to make them readable, we must encourage the people writing the reports to express it in their own language, use drawings and pictures, and provide assistance on problem solving. I have created my own glossary of terms for the plant both in Spanish and English. Now it is very common for workers to have a cell phone, and they take pictures and even video of the situation, this helps to close the gap.

[1] Biswas, P , http://isoconsultantpune.com/iso-90012015-organizational-knowledge/
[2] Pries K. Amigo Quality, volume 34, no 8. April 2014

Potential meeting schedule

Year	Month	Date	Day	Topic – Speaker	Location
2016	May	18	Wednesday	Design a Winning Value Proposition -- Hector Lopez	Hilton Garden Inn El Paso/University 111 W. University Ave.
2016	May	21	Saturday	Leadership Committee Planning meeting	United Blood Services– 424 S Mesa Hills Dr, El Paso, TX 79912
2016	Jun	15	Wednesday	TBD	TBD

Year	Month	Date	Day	Topic – Speaker	Location
				Design a Winning Value Proposition	Hilton Garden Inn El Paso/University

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