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Message from the editor



The South African Quality Institute would like to take this opportunity to thank all our members and supporters from around the world for their good wishes in our efforts in promoting the quality work that we are engaged in.

In this month's edition we are featuring the first of a number of articles submitted by Lance Coleman a senior member of ASQ. The first article is entitled: Risk Based Audits 1 (The Auditor). We then are pleased to publish the next article in Alastair Walker's series: Process evidence - can it be objectively evaluated. Paul Naysmith continues to entertain us with another one of his reflections from America. Terry Booysen then asks "Is it time to rethink leadership development?" and Richard Hayward continues his "Quality in Education" theme.

We are also covering feedback from some of our members on the 2013 NQW program.

By the time you receive this newsletter there will only be a few days left for you to submit your proposal for the 2014 SAQI NQW theme. We have already received a number of suggestions but yours may be the one we are waiting for. Let's remind you of the previous topics:

- 2009 • Placing Quality at the heart of our organization
- 2010 • Moving the borders of Quality
- 2011 • Leading the way to sustained Quality
- 2012 • Releasing your Quality potential
- 2013 • Building Quality into our Nation
- 2014 • _____?

Please send your proposed theme with a justification on why you chose that theme to exec@saqi.co.za

Paul Harding
SAQI MD



21st Century Auditing Part 1 – Risk Based Audits

By Lance Coleman

Risk Elimination. Risk Management. Risk Mitigation. This is the language of upper management, that we as auditors from any industry must learn, if we truly want to effect positive change throughout our environment.

This is a challenge that was put forth by Allan Sayle, one of the keynotes at the 20th annual Audit Division conference in Reno, Nevada, October 2011. He stated that if quality auditors wanted to remain relevant and keep from becoming marginalized, they needed to add new skills and credentials, and even more importantly, move beyond compliance monitoring, to determine how their work might impact the corporate bottom line. This can be achieved in two ways – either by driving continuous improvement (part two of this conversation), or by managing risk – the subject of this article. I would further state that a truly robust audit program is a three legged stool with the program platform resting on its three legs of compliance, risk management and continuous improvement.

Now if we are going to talk about risk management and auditing, the first questions to ask are – exactly what is meant by risk, how is it assessed, and what does it have to (potentially) do with auditing?

ISO 14971, used in the medical devices industry, defines risk as the combination of the probability of occurrence of harm and the severity of that harm. ISO 31000 defines risk more broadly as the effect of uncertainty on objectives. Also, in your risk planning, you have to take into account *producers risk* – the risk of rejecting a good part as bad, and *consumer risk*, the risk of accepting a bad part as good.

One commonly used metric for assessing risk is the risk priority number (RPN). This number is calculated by ranking each of the following, on a scale of 1 to 10, with one being best case and 10 being worst case scenario:

- Likelihood of occurrence
- Severity of occurrence
- Likelihood of detection

Then multiplying as below, with higher numbers equating to greater risk.

$$\text{RPN} = \text{likelihood} \times \text{severity} \times \text{mitigation}$$

So what does all this have to do with auditing? Actually, quite a bit. The four phases of auditing are planning, execution, closure and reporting. (There are five phases if you decide to include follow up as a part of the original audit, and not its own separate event.) During each phase of the auditing process, there is a risk assessment, and risk management component, even when they are not recognized as such. So let's take a look at how risk assessment and management naturally occurs within the audit program.

First though, let's discuss the hierarchy of risk. Every company must establish one as part of their risk management program. The prioritization below is common but by no means absolute or 100% consistent from company to company. How this risk is assessed, may also vary from industry to industry, company to company, or even from site to site within the same company.

1. Safety
2. Functionality/intended use suitability
3. Out of Specification – variable
4. Out of specification – attribute
5. Out of control process
6. Documentation issues
7. Reject good parts as bad

During the planning phase of the audit program, decisions must be made as to what to audit, when to audit, and at what frequency to audit. Once you get beyond regulatory, standard and customer requirements, company exposure to risk is the driving factor in making these determinations. When planning an individual audit, audit focus and sampling level are determined by both historical data (when applicable) and risk exposure.

During the execution phase of an audit, determinations must be sometimes made on whether to stick with the original plan and schedule or pursue an area of concern, that came up during the audit. The first determining factor in how to proceed, is if there is an immediate safety concern, then secondly whether or not the issue or concern falls under the scope of the audit. The third consideration would be what level of risk exists if the concern were not to be further explored? Another risk based decision is made when determining whether or not to increase sample size based on what the auditor is seeing from the initial sample.

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Classification of findings, determination of acceptable corrective actions, effectiveness verification and timeframes for action, all have an element of risk assessment included. Lastly, whether to schedule a follow up audit upon audit closure is just one more decision that is made based on risk to the company, customer or public.

So if we are already doing all of this “risk assessing and managing” naturally as part of a robust audit program, what is the point of this article? Well, we as quality professionals KNOW that having method and structure to a process is a better way to achieve consistently positive results than letting things happen organically. Now, we will talk about how to more formally integrate risk management into an audit program.

Let's look at three concrete things that can be done to formally integrate risk management into the internal audit process.

1. Changes to the “baseline” annual audit plan should be made based on areas of concern or opportunity identified in the annual senior management meeting.
2. Definitions and methodology for classifying audit findings should reflect a previously determined risk assessment matrix.
3. Reporting results and recommending action based on audit findings, should reflect the assessment of risk as determined during the audit process.

These three suggestions will give you a good starting foundation for formally integrating risk management into your internal audit program.

If you have any comments or experiences (positive or negative) you would like to share, or any questions on this article, please feel free to send me an email.

This article originally published in The Auditor newsletter in September 2012.

BIOGRAPHY

Lance Coleman is a Quality Engineer and site Lean program coordinator at The Tech Group in Tempe, Arizona USA where he manages the Lean, CAPA customer complaint and internal audit programs. He has a degree in Electrical Engineering Technology from the Southern Polytechnical University in Marietta, GA USA and is an ASQ Senior Member as well as Certified Six Sigma Green Belt, Certified Quality Auditor (CQA) and Certified Biomedical Auditor (CBA). Lance is a published author who presently serves as the ASQ Lean Enterprise Division Publications Committee Chair and Newsletter Editor. He is also principal consultant at Full Moon Consulting LLC. Lance can be reached with questions or comments at lance.b.coleman@gmail.com or via www.fullmoonconsulting.net



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Process evidence: Can it be objectively evaluated?

By Dr Alastair Walker : SPI Laboratory (Pty) Ltd, Johannesburg, South Africa

1. Introduction

In the fifth article of this multipart series, aspects of organisational process maturity were examined.

In this sixth article in this series, we explore the topic of how to reach an objective opinion regarding the quality of 'process evidence'.

2. Process evidence from the management system perspective

ISO 9001 [1] identifies the controls to be exercised over 'documented information' in sub-clause 4.2.3. It is noteworthy that the control aspects are strongly emphasized. These controls include: *a) to approve documents for adequacy prior to issue; b) to review and update as necessary and re-approve documents; c) to ensure that changes and the current revision status of documents are identified; d) to ensure that relevant versions of applicable documents are available at points of use; e) to ensure that documents remain legible and readily identifiable, f) to ensure that documents of external origin determined by the organization to be necessary for the planning and operation of the quality management system are identified and their distribution controlled, and g) to prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.*

It is significant that nowhere in this standard is the conformance of the actual informational content to good practices (or best practice) ever considered! This conformance appears to be simply assumed.

ISO 19011 [4], similarly, is vague regarding the need for evidence of good practice in the process evidence. For example, sub-clause 6.4.5 (Collection and verification of information) indicates that *'During the audit, information relevant to the audit objectives, audit scope and audit criteria, including information relating to interfaces between functions, activities and processes, should be collected by means of appropriate sampling and should be verified. Only information that is verifiable should be accepted as audit evidence.'*

One conclusion that we can draw from this brief review of management system and audit practice requirements is that the mere existence of documented information is usually enough to satisfy the expectation of the management system auditor. To put it rather bluntly, the 'documented information' may be complete rubbish with regard to the value of its content, but it exists – and therefore it is OK!

This may be one of the reasons that ISO 9001 certification is no longer a benchmark of organisational excellence – there is simply

too little attention paid during audits to the actual quality of the process content.

3. Types of evidence that need to be considered

We may classify process evidence according to the following categories:

- Anecdotal evidence
- Objective evidence
- Independent evidence
- Witnessed evidence

As the name suggests, *anecdotal evidence* is what is reported by an interviewee when queried about some aspect of process function or behaviour. Legal evidence expects such verbal evidence to be corroborated by a different and independent party in order for the evidence to be considered credible. Needless to say, management system auditors do tend to rely on anecdotal evidence, simply because there is little time usually available during which to collect evidence.

Objective evidence carries with it the expectation that the evidence is 'tangible' in some way, either in 'hard copy' or electronically represented. The important thing is that the information implied by the evidence can be scrutinised and independently reviewed and evaluated.

Independent evidence is where a mission critical task is undertaken by two independent parties, and the results of these independent efforts may then be evaluated. An example here may be the testing of an item of software that will be used to support a mission critical function – like a navigation system in an aircraft. It goes without saying that creating this type of evidence is very costly, and is normally reserved for those situations where high levels of confidence are required in the behaviour of the final product.

Witnessed evidence is quite familiar in activities where 'certification' is one of the intended outcomes. It simply refers to the fact that the performance of a process task has been observed at first hand, and the activities actually performed corroborate with any procedures that might have been consulted to guide the performance of the process.

The type of evidence to be collected to provide insight into process behaviour will depend on why the evidence is being collected in the first place. If the exercise is of the nature of a 'dipstick' assessment, then clearly we will rely rather heavily on anecdotal evidence. On the other hand, if the purpose of the exercise is to identify a preferred supplier of a product or service,

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we are more likely to move the direction of the evidence type towards objective evidence.

4. Dealing with base measures and derived measures

Before getting into the task of describing how we can objectively measure process evidence, we need to look at how these terms are defined:

A 'base measure' [5] is a measure defined in terms of an attribute and the method for quantifying it; and

A 'derived measure' [5] is a measure that is defined as a function of two or more values of base measures.

A very simple example of the difference between these two concepts may be helpful. In a motor vehicle the revolutions counter on the dashboard is a *basic measure* of engine performance. The speedometer however shows a *derived measure*, as it relies on the engine revolutions per time unit modified by a value of a 'constant' – in this case the gearbox ratio that prevails at the chosen instant of time.

So, against the background of the theme of the previous article in this series i.e. measuring process capability and enterprise process maturity, we may pose the question – what is the nature of the basic measures and, consequently, the derived measures? These relationships are illustrated in Figure 1.

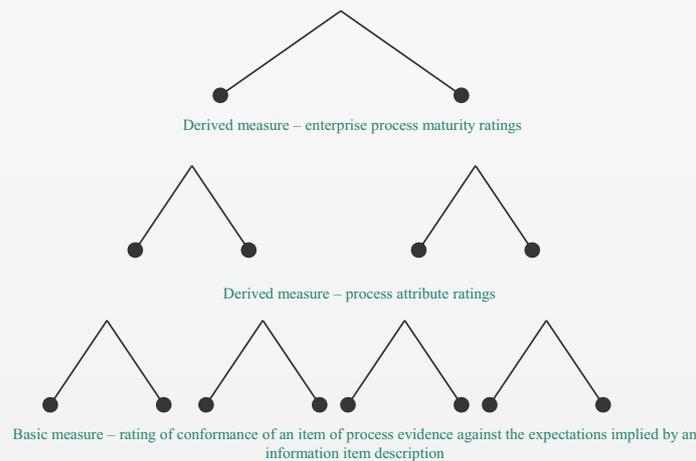


Figure 1 Basic and derived measures for process capability and enterprise process maturity

At the bottom of the figure is where the basic measurements are made. The results of these basic measurements are used to derive higher level results.

5. Rating process evidence framework

ISO/IEC 15504-2 [3] in section 5.7 defines a rating scale that is used for measurement of process capability attributes. Although the measurement scale defined in this standard is, strictly speaking, only applicable to the second tier in to the rating of process attributes, there is nothing to prevent the use of the measurement scale at the lowest tier level.

The typical Lickert Scale [6] has an odd number of rating values. In ISO/IEC 15504-2 a four level rating scale was intentionally chosen to avoid the problem of 'fence sitting' during the rating process i.e. the path of no resistance when faced with difficult choices is to choose the 'middle' path (or the centre point on the rating scale).

Table1 Process attribute rating scale			
Rating Symbol	Rating	Values	Description
N	Not achieved	0 to 15 % achievement	There is little or no evidence of achievement of the defined attribute in the assessed process.
P	Partially achieved	> 15 % to 50 % achievement	There is some evidence of an approach to, and some achievement of, the defined attribute in the assessed process. Some aspects of achievement of the attribute may be unpredictable.
L	Largely achieved	> 50 % to 85% achievement	There is evidence of a systematic approach to, and significant achievement of, the defined attribute in the assessed process. Some weakness related to this attribute may exist in the assessed process.
F	Fully achieved	> 85 % to 100 % achievement	There is evidence of a complete and systematic approach to, and full achievement of, the defined attribute in the assessed process. No significant weaknesses related to this attribute exist in the assessed process.

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The percentage bands in the Values column provide the means for aggregation the rating values in order to produce derived ratings.

6. Objective criteria for evaluating process evidence

How do we then apply the rating scale defined in the process evidence rating framework? For the sake of illustration, a simple example is selected which is based on the scenario of the design of a product, possibly software.

Table 2 lists the minimal criteria to be satisfied with respect to ISO 9001, section 7.3.3. Bearing in mind that the focus in this standard is upon quality criteria, the focus is upon the quality related concerns that need to be addressed.

If the domain of interest is extended to software design, then further criteria will be applied, noting that these additional criteria are specific concerns that need to be addressed.

Table2 Objective criteria for evaluating process evidence	
Information Item Name	Information Item Characteristics
Product design	ISO 9001 7.3.3 Design and development outputs a) meet the input requirements for design and development, b) provide appropriate information for purchasing, production and service provision, c) contain or reference product acceptance criteria, and d) specify the characteristics of the product that are essential for its safe and proper use.
	ISO/IEC 15289: 10.70: [2] (Software Design). It includes the following: a) identification of external interfaces, software components, software units, and other interfaces b) allocation of software item requirements to software components, further refined, as needed, to facilitate detail design c) description of the items (systems, configuration items, users, hardware, software, etc.) that must communicate with other items to pass and receive data, instructions or information d) the concept of execution including data flow and control flow e) security considerations f) reuse elements g) error handling.

From a rating perspective, an assessor would 'calibrate' his perspective using the software design description of ISO/IEC 15289 10.70 and then carefully review the intent and content of a client supplied item of (software design) process evidence, and then make a judgement i.e. (rating decision) accordingly. For example, an assigned rating of **Largely Achieved** might have been based on a judgement that while items a) to f) in the list had all been addressed, item g) had been overlooked.

7. Wrap-up

Using this conceptual foundation for rating process evidence, the next (and final) article will bring all the elements together that have explored in this series.

8. References

- [1] ISO 9001, 2008, Quality management systems – Requirements.
- [2] ISO/IEC 15289, 2011, Software and Systems Engineering — Content of life-cycle information products (documentation)
- [3] ISO/IEC 15504-2, 2003, Software engineering — Process assessment — Part 2: Performing an assessment
- [4] ISO 19011, 2011, Guidelines for auditing management systems
- [5] ISO/IEC 25020, 2007, Software Engineering — Software quality requirements and evaluation (SQuARE) — Quality measurement — Measurement reference model and guide
- [6] World wide web, Wikipedia on the Lickert Scale (http://en.wikipedia.org/wiki/Likert_scale). Consulted 15 February 2014

9. About the Author



Dr Alastair Walker is the founder and chief executive officer of the Software Process Improvement Laboratory. He is a member of the Standards South Africa Information Technology Committee (TC 71), and chair of SABS National Committee for Software Engineering Standards (TC001-SC7). He is a member of SABS technical committees TC176 (Quality assurance and quality management, TC 180 (Conformity assessment) and TC 175 (Process Models).

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Bridge Ices Before Road

Sometimes it's better to get an outside perspective to your problems

By Payl Naysmith



For work purposes, I first made my way to the United States on short business trip in October 2007. I remember it vividly, I was not long married and my boss was putting me on the long haul into Texas and Louisiana. During those travels, and fresh in my head was the unusually warm day in Scotland right splat in the middle of October when we had our wedding day, just one week before. Surprisingly it got to a heavenly seventeen degrees Celsius or seventy Fahrenheit on our wedding day. A day so bright and warm, our photographer convinced us to get photos taken on the beach, where children were running at the newly titled Mrs. N, with ice-cream in their hands. This was unusual for Scotland, we're usually doomed to a climate that changes for the worse every twenty minutes, and is more conducive for staying indoors. My mother will reference it at times "soup weather", weather too cold and terrible, the only remedy is eating soup to keep us warm. A few days after the wedding festivities, weather worsening in Scotland, I stepped off that aircraft into the subtropical climate of the Southern United States. I can only compare it to like being slapped in the face with a hot-damp-sponge.

The heat and humidity smothered me. I couldn't bare it. Over dressed for such an environment, I did the thing that most Scotsmen do in such as circumstance: strip down to my underwear. I apologize for the mental picture that I have given to you for free. Who would have thought, that almost exactly four years later, I would be living with the climate daily, and face the real horror of the August heat and humidity of Louisiana? Interestingly as a Northern dwelling Brit, I was always used to the cold and I was never designed for the heat, I would pass an intriguing sign post after sign post with a dire warning as I travelled across Texas and Louisiana: Bridge Ices Before Road.

I laughed at such a notion in Louisiana. Ice only existed in my drinks, never outdoors, how could it in such a climate? And if it was a little frosty, why as a driver do I need to be reminded of this? After all, I grew up driving in snow and ice in the winter in Scotland, and people would put salt or sand down to reduce any road risks.

I'd approach my colleagues and ask them about this ridiculous sign. They would give me a look. The type of look that inside their head they are saying "why is this strange looking and sounding man asking obvious questions?". They would tell me that, unsurprisingly, that the bridge surface would ice, wait for it, before the road would. But somehow with my life experience, I

know roads (regardless of where they are) will ice up when it gets cold enough. I know that you have to change your driving style in the winter. But I could not fathom, that it gets that cold in Louisiana, with an annual average temperature of eighty Fahrenheit or twenty seven Celsius, in the same way my colleagues could not fathom, when the time was right, to change to winter tyres on their cars. This is the benefit of difference. Different experiences or being an outsider can bring a differently needed perspective when looking at a problem.

Two years into our American dream, I experienced the extreme drop in mercury and the resulting ice on the car windows in the morning. For most people in Louisiana, this signifies the start of "Gumbo Weather" season (it gets so cold that the Cajuns eat Gumbo to heat themselves up), and cars start falling off the roads when the driver hits a patch of frost. For me, it was a nice reminder, of how much I like the crispness of frost laden air: temperature at the point, where bridges do ice before the roads.

It was not a couple of hours into that chilly day, I have colleagues outside my office were trying to keep warm, layered up with their hoods over their heads, tucked neatly into their hard hats. I'm prepared to be asked "can we go home, it's too cold?", but the question never came. Instead I was being informed "the tools aren't testing. We keep seeing leaks". In the business I work in, we build fantastically technical equipment to support our clients. This equipment, we call tools, are complex in their assembly that requires subsequent testing and verification to ensure success, when deployed into an oil and gas well. One of these tests is in essence a "leak" test, and due to the expert skills of my colleagues, the quality of our engineering and the ability of our suppliers, we have a very high success rate of equipment that doesn't leak, except on this arctic Cajun day.

I don't know why, or how it came into my head, I had memories of a younger me, sitting on the floor in a group at school being told of a great tragedy. Sad recollections of watching a television in the classroom of the Challenger space shuttle disaster from the mid-1980's. Returning to the present, I looked up and asked my now thawed colleague "was the leaks at the o-ring connections?" Stunned by my question, and looking at each other, they answered "yes" in disbelief. Now they wanted to know how I knew that small detail, without being there and seeing the leak. It was just a guess, but I think I was observing similar traits to the immediate cause of the loss of seven astronauts in January 1986. The young man I am attempting to explain the space shuttle disaster to, was born long after the 1980's came to a close, so he really cannot relate to the Challenger incident, but he is connecting with the story of the o-rings and a cold morning of the launch.

If you are familiar with my writing, you may know that one of my hobbies is reading investigation reports into failures (Naysmith, 2012), and the Rogers Commission report into the Space Shuttle disaster is one report that is part of my collection (Rogers Commission, 1986). In this report, there is a section called appendix F, written in such a way that it stands alone from the rest of the report. It is different because it was written by Prof.

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Richard Feynman, a Nobel Prize winner for physics and the person who identified the immediate and root causes of the space shuttle Challenger disaster.

In this appendix and in his book (Feynman, 1988) Prof. Feynman identifies a defect where under certain temperature conditions, the o-ring (a device that prevents gasses travelling between two assembled components) would become pinched, did not maintain the seal and with the expansion of the components during takeoff, would allow the hot gasses to pass into a section where gasses were not supposed to be, ultimately causing the loss of life. There is a great video available online that does a much better job of explaining Prof. Feynman, in his own words and presented in his particular way (RichardFeynmanLove, 2010) on YouTube that I very much recommend.

As technically interesting as the explanation that o-rings are susceptible to, and how their deformation is maintained in cold temperatures, would lead to leaks, I am sure my subconscious didn't spark the thought of the Challenger disaster for this reason in my situation. In fact, all I had was a theory based upon an unrelated industry or application, not an explanation about the test that failed at my place of work. However what was more interesting to me was that I was being asked about a problem. An outsider to their process, I am an individual with different experiences, able to have an alternative point of view that could bring value, to finding a solution.

Prof. Feynman was an outsider in the Rogers commission. His approach was based upon his different experiences, he was grounded in explaining complex physics in beautifully simple terms, and he was not confined to some interconnecting tie that the other commissioners had to NASA. A tie, which would blind the other commissioners, from potentially realizing the difficult and painful truths that caused the event. It was Feynman that followed the breadcrumb trail to the true root cause (which was ultimately management failure), and through his tenacity had his appendix F published separately, and personally present it to the then President of the United States.

In our role as Quality Professionals, we may be drawn into conducting or even leading investigations. Selecting your team is key to success, and why not get someone involved from outside the process involved. It's not about finding someone who thinks different, it is about finding someone that cannot relate to your process or doesn't have terms of reference for a "bridge ices before road", as they could be a useful asset to finding the way to the root cause. Therefore my call to action is the next time you have an investigation to lead, find a member from a different department to be part of your team. Give them the space and courtesy to ask their questions, and answer them in a language they will understand. You may begin to find that an outsider is an ally in times of need.

Sub-note on Prof. Feynman and Quality.

During his investigation into the rocket system manufacturers, Prof. Feynman gets an insight into what Quality, or non-Quality is. In his book (Feynman, 1988) within the chapter entitled "Gumshoes", he meets the managers and workers of the rocket factory. Here Feynman relates the story of talking about how he was discussing the o-ring problem with the assembly workforce, and how the workforce would know of the risks or problems with the o-rings, and how they made suggestions for improvements. Feynman stated "Those suggestions weren't very good, but the point is, the workers were thinking! I got the impression that they were not undisciplined: they were very interested in what they were doing, but they weren't being given much encouragement. Nobody was paying much attention to them. It was remarkable that their morale was as high as it was under the circumstances." I view this as fascinating, there were the workers, content and

proud of their work, wanting to do a quality job, but prevented from doing so. They were not enabled by their management organization to create "quality". Perhaps if there was a different culture, one focused on achieving quality, changes would have been made to a safety critical feature and lives would have been saved. I recognize that viewing life through hindsight is always easier, than the problems faced in the moment. However hindsight is useful in preventing repeat mistakes.

Feynman's book goes into other elements of Quality or lack of, which led to the Challenger disaster. Should you have the time, please use Deming's fourteen points as a checklist when reading through this report or his book. Use it to read how back then NASA or its suppliers did or didn't have consideration for these points, you may be surprised. For Feynman, reading the warning signs was as plain and simple as seeing a sign stating: Bridge Ices Before Road.

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About Paul Naysmith:



As well as being a Quality Punk and Improvement Ninja, [Paul Naysmith](#) is the HSEQ regional manager in the United States for a leading oil- and gas-well services company. He is a Chartered Fellow with the UK's Chartered Quality Institute (CQI) and an honorary member of the South African Quality Institute (SAQI). Naysmith has a bachelor of science in paper science and management, and has worked in industrial textiles, food manufacturing, and the aerospace industry. When not

working, he enjoys photography, training to become a Cajun, and spending every precious moment with his family. Connect with him on www.paulnaysmith.com, LinkedIn, or follow on twitter [@PNaysmith](#) or buy his printed book [Business Management Tips from a Quality Punk](#) also available as an [ebook](#) (Lulu, 2013). Paul is a regular contributor to the eQuality Edge Magazine, Quality World Magazine and Quality Digest Magazine. Reproduction of any of Paul's articles can only be authorized by contacting him directly at naysmith@yahoo.com



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REFRALINE

2013 National Quality Week Celebrations



REFRALINE

Group of Companies

Quality is the cornerstone of everything we do at Refraline, and being the leaders in the Refractory installation, manufacturing and supply and a recent appointed platinum member of the South African Quality Institute, we undertook our National Quality week awareness programme for the first time.

As this was our first awareness programme it was decided to hold a quality awareness month which started on the 1st of November with the “raising” of the banners at each of the Refraline group of Companies. Banners were raised at Refraline head office, Refraline Natal, Refraline SA Industrial Linings, and Refraline WR Refractory Services in Richards Bay. Banners were also raised at the main Refraline work sites which included, BHP Billiton Metalloys in Meyerton, Samancor Ferrometals in Witbank, Refraline Natal – Sasol/Evander site and Refraline Natal – Assmang Cato Ridge site.

Week one saw myself, Jacques Krog, Group Quality Manager for Refraline as well as Jan Mieny, Group Safety & training Manager launching our SHEQ vision for the group as well as code of ethics for all SHEQ professionals within the group. The quality training calendar was also launched, which includes a continuous professional development programme. Refraline will be using the South African Quality Institute's training programme to train all SHEQ professionals within the group.

Week two and three saw the Group Managing Director, Mr Manfred Rosch, the Managing Director for Refraline Natal, Mr Rudy Van Der Walt and myself travelling to all the companies and sites to discuss quality and the quality policy with all employees as well as get everybody to sign the quality policy. Each and every employee was left with a cap, having a quality message inscribed on the cap to remember. Many thanks to all employees concerned as well as the SHEQ team, Group Managing Director, and Managing Director for Refraline Natal.

Refraline was established in 1981, and specialises in the installation, repair, supply and maintenance of refractory and corrosion solutions for a wide range of industries including iron and steel, ferro – alloys, non-ferrous metals, chemicals and petrochemicals, cement and lime, power generation, mining, paper and pulp, clay brick, glass and ceramics. With its head office based in Johannesburg is employs more than 500 employees, and is both ISO 9001 and OHSAS 18001 certified.

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Armaments Corporation of South Africa SOC Ltd

Building Quality into our Nation

This year, World Quality Week was celebrated during 11–15 November. The highlight of the week was World Quality Day on 13 November where Mr. Harding, MD of SAQI gave a presentation on “Building Quality into our Nation. Armscor Quality Managers and personnel distributed a thank- you memento to all employees as a token of appreciation for their contribution to branding Armscor as a QUALITY organization.

This year's theme, namely Building Quality into our Nation, was the mother of all themes and the culmination of the previous four years' themes, namely:

- Placing quality at the heart of Armscor
- Moving the borders of quality
- Leading the way to sustained quality
- Releasing your quality potential.

In the global market it cannot be denied that **quality products and services** is one of the most competitive weapons any organization or country can employ to ensure sustainable existence and growth. Ultimately it will have a positive effect on the quality of life of all citizens.

While there is still a window of opportunity for Building Quality into our Nation, it is the responsibility of each one of us to contribute positively wherever we render outputs, no matter how big or how small it might be.

What an achievement it would be if the contribution of each one of us culminated in South Africa featuring on a respectable spot in the world competitiveness ranking and being a force to be reckoned with in the league in which we are playing.

Such achievements of excellence are possible – other organizations and countries are striving actively to reach such goals, and are reaping success.

Armscor also launched a photo competition for WQW. The winner with the photo expressing the theme the best was Julie Malan (World Quality Engineering). Second was Shane Boyd – (Workplace Quality).

Together we strive to be a quality company and building Quality into our Nation and workplace.



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It's time to rethink Leadership Development: Building momentum for a Leadership Culture

Article by CGF Research, written by Dr. Gerhard van Rensburg

Leadership excellence is fundamental to the health and performance of an organisation. Leadership development, however, in most cases is a costly affair. It therefore warrants careful consideration of what organisations hope to achieve when they invest in leadership development. If the point of departure is to help people excel as highly competent individuals, then the criteria for a development programme would be different from one where the goal is to grow people in order to achieve more with and through others – in other words true leadership and teamwork.

Changing perceptions and expectations of leadership

Times change and so do the perceptions and expectations of leadership. If we lived in ancient times when progress meant territorial dominance and hard, hand-fought victories on the battlefield, we would be looking for strong, brave and imposing men with some ability to out-think the enemy. If we lived in the industrial age we would be looking for superior scientific minds. As the world became more ordered, specialised and hierarchically structured in governments, institutions, business and many other types of organisations; technical or functional ability and political astuteness (skilful in tactics and power play) allowed many to rise to the top and thus be recognised as leaders. In this scenario, leadership is typically exercised through command and control complimented by concomitant tactics of intimidation and manipulation. Unfortunately, there are far too many examples with this type of leadership and organisations may be stuck in this old mindset.

Instruments of power

Where command and control still delivers results, the people have resigned themselves to the idea that they are fundamentally either stronger or weaker instruments of power - in some cases they paint themselves powerless for life, in others they believe they are untouchable and as a result often ruin their personal relationships. They fear or respect power for the sake of power. Where those at the top embrace the culture -- and why would they not if they were successful in and beneficiaries of it -- they will more likely than not, consciously or unconsciously, further entrench this culture through the choices they make on training and development. It does not bode well for the future in a world where optimum learning, flexibility and responsiveness are such important factors for success.

The cost

The cost for organisations, and more specifically, when the leadership are poorly aligned with societal changes is immeasurably high. Today's knowledge worker commits

themselves when they experience the freedom to be creative and enterprising. In a command and control environment they feel inhibited and frustrated; the result being untapped potential. Moreover, people in such an environment often withhold critical information which ultimately comes at a cost to the organisation.

Another cost factor is that employees who are not intrinsically motivated but prepared to submissively and passively 'sit out' their careers for the sake of a salary cheque, are nowadays difficult and expensive to get rid of. The longer we have command and control environments (as it is experienced by the common worker, since it is seldom acknowledged by the leadership), the more disengaged people will become. Progressive organisations, understand what is required of a modern-day leader, and are quickly pulling away from their counterparts who continue to practice the archaic *command and control* tactics.



By Frits Ahlfeldt

The key shift

Who do we regard as good leaders? Who is climbing the ladder to higher positions of authority and power? Who gets the benefit of the doubt when it comes to filling leadership positions? Is it not those with a strong knowledge base as reflected in their academic qualifications and other certificates? Is it not those with technical know-how and management experience? And is it not those who have demonstrated the ability to use their positional power to get quick results? We believe these are the three criteria most people have in mind when they consider candidates for leadership positions. Whoever fits the bill, can be forgiven if he or she feels superior to the rest. The combination of high intellect, know-how, tactical skill and a robust ego is a powerful one. It is almost inevitable that the leadership challenge ends up to be no more than a battle of wits and ego's in budget, planning and strategy sessions. Teamwork, the key to success, suffers as a result.

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How would leadership development programmes be of any use for the above? If it means another qualification to go on the manager's CV, more ideas, theories, models and arguments for the meeting room, and perhaps some insights that could improve personal effectiveness, then it will fit the requirement well. But the question that needs to be asked above all is: what is the value for the organisation as a whole? What is the positive influence on those who work with the leader, their morale, energy, focus, productivity, willingness to take responsibility, innovativeness, and own leadership development? Furthermore, what are the ethical and governance values being driven by the organisation and its leaders, and do management support these? And then, what are the positive changes that others see in terms of the manager's willingness to sacrifice for the cause, openness to feedback, team-orientation, his/her courage to name the real issues that prevent growth in the organisation, and work towards much needed transformation?

i. Culture eats strategy for lunch

The observation is widespread that in spite of various leadership development initiatives, the change that matters most, invariably does not take place. In other words, a change of leadership culture is required and is not being done. More sophisticated strategies, better designs, and the latest performance management tools or tactics to out-manoeuvre the opposition, can never achieve what a strong leadership culture can. What most people in 'unhealthy organisations' secretly or openly hope to see, is a change of heart in their leadership.

The reason for poor or inadequate performance in organisations very seldom is lack of knowledge, skills or experience. Rather, it is to be found in the leader's lack of attention to behavioural aspects, the general climate, and the alignment in the organisation. When leaders really concern themselves with the character of their organisation, they forget about their ego concerns and personal agendas. To use an analogy from the sports world, we know that when we are in agreement that the team showed character it also means they gave their hearts for the team and the greater cause. Poor character is when a team member puts his own interests before those of the team.

Leadership development for our times need to be in the areas of awareness, 'inner work' (self-mastery) and context-sensitive leadership responses.

ii. Awareness

It is to state the obvious that heightened levels of awareness is needed for real change in mindset, attitude and behaviour. As the emotional intelligence expert Daniel Goleman points out, self-awareness forms the cornerstone for awareness of others, self-regulation and regulation of inter-personal relationships. As obvious and simple as it seems, it is not a given. As a starting point it requires openness, vulnerability and humility to grow in self-awareness. With the 'chips' of knowledge, experience and positional power on one's shoulder, the tendency is very high to filter out signals that might be damaging to the ego.

The three main areas for awareness are *personal disposition and discipline, adaptation to and need for change, and relationships*. The defining, breakthrough moment that leads to heightened awareness and sets 'inner work' in motion, often is the understanding that the use of outside help -- typically from family members to friends, colleagues, books, coaches and mentors -- is not a sign of weakness, but of becoming more authentic and mature.

iii. Inner work (self-mastery)

Awareness is one thing, but challenging conversations with oneself is another. As all exemplary leaders will testify, the 'make or break' in their growth as leaders were the challenges they put to themselves in response to the challenges they experienced from the outside; be they tragedies, major disappointments, lack of results, personal attacks on them, honest but hurtful feedback or overwhelming responsibility. Sometimes 'inner work' demands nothing short of a deep and painful 'inner journey' - going back to unresolved issues and unhealed pain of the past. But most of the time it is nothing as dramatic as that, but being intentional and committed to grow as a person and a leader in all the many wonderful facets of being human.

iv. Context-sensitive leadership responses (use of inner wisdom)

Key to leadership and leadership development is the ability to respond appropriately and more wisely to all kinds of situations. That is why awareness and inner work is so important. To think that reading textbooks will help the leader to do the right thing or minimise damage is shortsighted. Leadership in its proper sense is authentic, spontaneous and from within. Whatever knowledge the leader comes across, it needs to be internalised to make any real and meaningful difference. A leader that has grown out of the command and control style learns the critical importance of adjustment. For instance, to be forceful, courageous and bold is important in leadership. But the context determines when it is appropriate and most effective. Bright ideas at the wrong time or with an insensitive presentation in a particular context can be totally counter-productive. The key to becoming wiser is to consciously and intentionally keep all channels of feedback and learning open. When we are open and receptive to our environment and to others, our eyes 'open' to the wisdom that we have within but never allowed to guide us. It is at the point where we allow ourselves to be vulnerable, not all-knowing and self-important, that we rise to new levels of understanding and insight.

From a leadership development perspective, it is much more effective to explore leadership responses in conversation with others who share the same context (facing their 'real world') than listening to leadership theory in a lecture room. It is a common complaint that the good and lofty ideas in the lecture room come to nothing the moment a person is back at the office facing 'the real world'. It is different when leaders in a development programme support each other by sharing their leadership thoughts and questions as they face the challenges before them.

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For healthy workplace and social structures to thrive, leadership development should facilitate growth in the areas of awareness, 'inner work' and context-sensitive leadership responses. As illustrated below, in many cases a shift in thinking about leadership development from an outdated paradigm needs to take place.

OLD CRITERIA AND DEVELOPMENT FOCUS	DEVELOPMENT FOCUS FOR ORGANISATIONAL HEALTH
Knowledge	Awareness
Experience	Inner work (reflection and self-challenge)
Strategic and tactical skills	Context-sensitive leadership responses (use of inner wisdom)
Strategy before culture	Culture before strategy
Change of processes and tools	Change of heart and attitude
Advocacy	Questioning and shared learning
Good for transactional environment	Needed for transformational environment

Less is more

The best way to grow a leadership culture is to further develop those who already have a positive influence in the organisation. The questions to ask in order to identify them are the following:

- Is the person clearly passionate about the cause and values of the organisation?
- Is it evident that he does not need and does not have to rely on the power of his position to be able to have significant influence?
- Does he genuinely want to become a better leader?
- Would he be keen to play a part in building a strong leadership culture in the organisation?
- Is he loyal to the organisation, and will he be part of the organisation for at least for the next two to three years?

Such a group of leaders will have an enormous impact if they purposefully support each other and grow their leadership according to the above-stated development principles for organisational health. A wholesale approach where everyone at a certain level is included in a development programme can at times disappoint in terms of its impact for the organisation. Half-motivated people who participate under some form of internal or external pressure dilute the value. As a strategy to grow a leadership culture, a focused approach with a core of motivated people delivers far better and more sustainable results for the organisation.

The example of Nelson Mandela

Late last year, the world appeared to stand still and reflect on the remarkable life and example of Nelson Mandela. One of the most striking and powerful illustrations of his leadership influence is that so many people recalled that nobody could turn down his requests - a manager's dream! It is the best possible illustration of the truth of John Maxwell's axiom: *a leader first gives his heart then asks for a hand*. The belief that, particularly business leaders, need to hide their hearts from others (and themselves) in order to take hard, calculated decisions and remain resolute in negotiation, is wrong and in truth undermining of their leadership. Passion for and dedication to the cause, is a matter of the heart. And so respect for others, the will to

serve -- humility -- the willingness to ask forgiveness, care, trust, compassion, moral conviction, resilience and perseverance are indeed matters of the heart.

Surely, if we recognise leadership excellence in the person of Nelson Mandela, we should endeavour to look for and grow the qualities he lived and demonstrated. For organisations it is not a call to become more 'touchy or feely', but to responsibly address the context within which business decisions are taken and to ensure that these decisions accurately reflect the organisation's heart, mind and soul, be this in its strategy, finance, marketing, technology and corporate social values.



The CGF leadership development process is built on the above-stated views. It includes the following: The heartstyles assessment (www.heartstyles.com), the 32 leadership principles online programme (www.newlead.co.za/corporate-offering), individual coaching and group learning facilitation.

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Quality in Schools

a regular column by Dr Richard Hayward

As most of our readers are parents themselves, we have asked SAQI's education editor Richard Hayward (rdphayward@yahoo.com), a retired headmaster and published author to give us some words of wisdom on how to get quality principles instilled in young people.

Find the time

by Dr Richard Hayward

You might have seen Chad le Clos on TV at the 2012 London Olympics. He beat Michael Phelps in the swimming pool by a nanosecond to win the gold medal. If you saw that race, you might remember that afterwards the camera panned on Chad's family. They were screaming and shouting in the stands as well as tears of joy.

Chad often commented in newspaper and TV interviews about the wonderful support given by his mom and dad as well as younger brother. His parents sacrificed many hours and days to be there for Chad. There were the daily before-dawn training sessions in the pool; there were the countless swimming competitions, galas and trials that Chad took part in before his amazing achievements in London. His loving and supportive parents helped to make his swimming victories possible.

Parents have a huge part to play in helping their children achieve excellence in sport and cultural activities. At a school level there are often coaches and teachers who know more about an activity than many parents. Chad, for example, was coached at primary school by one of his teachers but she soon realised his incredible latent talent. Swimming coach specialists further developed Chad's skills. Yet always in the background in Chad's life were his parents. They motivated him and when there were the inevitable disappointments on the road to international fame, they gave him the inner courage to carry on.

Autobiographies of high achievers often refer to the huge positive role that parents have played in their lives. Richard Branson of Virgin Airlines and Virgin Active fame has written that school days were not the easiest of days. Yet his mother believed in him and supported his earliest entrepreneurial ideas. Look at him today!

Children who excel in the classroom and in the extramural programme aren't simply more clever or talented. Rather, they've usually have a strong family support base. Either one or both parents and family members are emotionally involved in helping their children succeed. They're at the cricket, hockey, netball and rugby matches; they're in the audience when their children are performing in Eisteddfods and school plays. Parents celebrate the good times but are also there to give words of comfort when their son is bowled out for a duck or their daughter fluffs her lines in a school play.

The year 2014 has just begun. By now you should have your children's extramural programme. What school activities will they take part in and which ones will you be supporting? I strongly believe – from personal observations – that children seem to 'up their game' when they know that mom or dad or a grandparent is there to give encouragement. Parents have busy daily schedules. Yet how about scheduling time to be there for your children? Pencil in your diary **now** those times when you won't be at your office desk. Instead, you'll be leaving work a bit earlier to be at the school enjoying watching your children achieve.

A 'cop out' by some parents is that because they're so busy, they can't give their children much 'quantity' of their time. Instead – they claim – the little time that they give their children is of high 'quality'. Yet to achieve excellence in anything, there's the need to put in a quantity of time. Give your children a quantity of your time and you'll be delighted with the quality of their achievements. Find the time.

Richard Hayward does programmes on behalf of SAQI. For more details of the Total Quality Education (TQE): the five pillars of Quality schools workshops, please contact Richard (011-888-3262; rdphayward@yahoo.com). Poor schools are sponsored for hosting workshops.

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SAQI Training Programme for 2014

All courses offered by the South African Quality Institute are presented in association with other course providers and are available to all organisations including SMMEs and corporates. SAQI can assist with the training of a company's workforce and all training packages can be run in-house at cheaper rates. A special 10% discount applies to SAQI members. **All prices include VAT.** For more information or to register contact Vanessa du Toit at (012) 349 5006 or vanessa@saqi.co.za

SAQI reserves the right to change details of the programme without prior notice. Click on the course code for a synopsis or [click here](#) for all course synopsis in alphabetical order.



DOWNLOAD TRAINING REGISTRATION FORM

Code	Course	Days	Cost	Feb	March	April	May	June
B12	ISO 14000 overview	1	R2,500.00			30		
B14	Integrated Management Requirements	3	R5,000.00		12-14			
B16	Internal Quality Auditing	3	R5,100.00	5-7			28-30	
B20	Organisational QMS Lead Auditor	5	R11,500.00				5-9	
B24	How to write procedures	2	R4,400.00		24-25			
B34	Statistical Process Control	5	R11,500.00			7-11		
B38	Development of QMS	5	R11,500.00				12-16	
B41	Introduction to Quality Control	1	R2,500.00	20				12
B48	ISO 9001 Requirements Workshop	3	R5,000.00		5-7			
B58	Customer Satisfaction and Excellence	2	R4,400.00			23-24		
B64	Introduction to Quality Techniques	3	R5,000.00	12-14				4-6
B65	SAQI Certificate in Quality	10	R19,500.00				19-23	23-27
B66	Problem Solving and Decision Making	3	R6,000.00			14-16		
B75	Intro to Lean	1	R2,100.00				26	
B76	Lean for the Service Industry	4	R8,700.00		10-13			18-20
B82	Incident and Accident Investigations	2	R6,700.00		10-11			
B83	Project Management and Quality	3	R15,100.00					9-11
B84	Supply Chain Management	3	R12,700.00		17-19			
B85	Production Planning and Scheduling	3	R15,100.00		26-28			
B86	Inventory and Warehouse Management	2	R10,250.00			2-3		

SAQI also offer the following courses on an inhouse basis for 10 or more delegates. Please contact vanessa@saqi.co.za for a quote.

- Control Chart And process Capabilities (B31)
- Cost of Quality (B1)
- Customer Care (B39)
- Customer Satisfaction and Excellence (B58)
- Development of Quality Management System (B38)
- EMS Lead Auditor (B50)
- Executive Report Writing (B57)
- Exceptional Service (B32)
- Health And Safety Lead Auditor (B52)
- How To Write Procedures, Work Instructions And ISO 9000 Overview (B24)
- ISO 14000 Overview (B12)
- ISO 9001:2008 Requirements Workshop (B48)
- Integrated Management Requirements (B14)
- Internal Quality Auditing (B16)
- Introduction To Quality Control (B41)
- Introduction To Quality Techniques (B64)
- Organisational Lead Auditor (Preparation Course) (B20)
- Policy Deployment And Continual Improvement
- Project Management Demystified (TD1)
- SHEQ Internal Auditing (B49)
- SHEQ System Development Programme (B51)
- Statistical Process Control (Basic Quality Control) (B34)

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