e - Quality Edge

bringing quality information to South Africans since 1996

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Welcome to the June Newsletter

Our lead article is by Alastair Walker on standardization in systems and software engineering. This will support our new special interest group on quality in the IT sector. We will also be focusing on the human aspect of improving quality and motivation. We also look at mentoring the workforce something that seems to have fallen by the wayside in South Africa.

We are also pleased to announce that SAQI and the Southern African Society for Quality (SASQ) have signed a memorandum of Understanding whereby both organisations work together for the benefit of promoting quality in the region.

Terry Booysen keeps us informed on new procurement regulations and Richard Hayward asks our learners "What would they want to be one day?"

New articles are always welcome and we encourage our readers to showcase their achievements or express their opinions on quality and related matters.

Paul Harding

SAQI MD

WWW.SAQI.CO.ZA

Quality:
helping South Africans live, learn and work better

PROUDLY SOUTH AFRICAN

Standardisation in Systems and Software Engineering

By Dr Alastair Walker

1.   Introduction

Standardisation efforts in the field of systems and software engineering date back to 1987 when the sub-committee (ISO/IEC JTC1 SC7) was first established. Today, this work is progressed by about 700 technical experts, from 58 countries, (38 actively participating countries, and 20 observer countries). SC7 is not alone in this work. It has a strong and vigorous liaison with the Institution of Electrical and Electronic Engineers (IEEE) Computer Society (CS), which has ~400,000 members internationally. Many of the SC7 standards are jointly published by the IEEE CS.

2.   Focus areas of standardisation

The following list highlights the considerable diversity of coverage in the field of systems and software engineering. Workgroups 2 – 10 were established early in the history of SC7, while the later numbered Workgroups represent emerging fields of interest and professional concerns.

· WG2 Systems, Software and IT Service Documentation
· WG4 Tools and Methods
· WG6 Software Product Quality Measurement and Evaluation
· WG7 Life Cycle Management
· WG10 Process Assessment
· WG19 Techniques for Specifying IT Systems
· WG20 Software and System Body of Knowledge and Professionalization
· WG21 Information Technology Asset Management
· WG24 SLC Profiles and Guidelines for VSE
· WG26 Software Testing
· WG42 Architecture

Below are some brief comments regarding these activities and the significance of some of the Workgroups.

2.1   WG2 Systems, Software an IT Service Documentation

The focus here is upon methods for documenting systems and software engineering activities through the lifecycle. The most widely used standard, in this category, is ISO/IEC/IEEE 15289 (Content of life-cycle information items (documentation)). So, for example, assuming you are not an expert in this field, if a consultant provides a 'project plan' for your approval, how will you judge whether the important concerns are addressed? This standard identifies the critical concerns that should be addressed. It is worth noting that the document covers 95 important areas of concern, ranging all the way from Acceptance Plan (item 2) through to Verification Report (item 95). It is a goldmine of valuable information!

Another area covered by WG2 is the usability of web sites. Have you ever wondered 'how good is my website?' ISO/IEC 23026 (Engineering and management of websites for systems, software, and services information) is primarily concerned with the human usability of the web site, and the quality of its management and supportive infrastructure. It does not however, address the aesthetic concerns of a website, as that is the province of the graphic designers.

2.2   WG4 Tools and Methods

If you were asked to approve the acquisition of a new software tool, how would you react? Would you simply 'sign on the dotted line', hoping that the tool will add value? There is a better way!

The standards prepared by this Workgroup focus on identifying requirements for the acquisition of software tools. For example, ISO/IEC 18018 (Configuration Management Tool Requirements) provides a specification of 'must have' features for tools that claim to support configuration management.

2.3   WG6 Software Product Quality Measurement and Evaluation

This Workgroup has long addressed the problem statement of 'how do I know how good my new software system is?' Is there any way to judge whether it will perform well in actual use? This is precisely the type of question that this Workgroup has wrestled with over the years. Today, the efforts of this Workgroup are contained in the ISO/IEC 25000 series.

So, for example, to answer the question 'how can I actually assess the quality of my new online manufacturing system'? The answer will be – take a look at ISO/IEC 25023 (Measurement of system and software product quality). This document looks at both the external quality of the product (i.e. under conditions of 'black box' testing, as well as the internal quality of the product i.e. as tested under the conditions of 'white box' testing.

This Workgroup is also the custodian of a family of standards dealing with the topic of 'functional size measurement'. Have you ever wondered how software development effort can be

estimated when considering the development of a new software system? This family of standards provides the measurement framework for this purpose, serving the same intent as the 'number of square metres' does in the building and construction industry. The most widely used standard in this category is ISO/IEC 20926 (Software measurement -- IFPUG functional size measurement method). In addition to this standard that focuses on the sizing of database based software systems, there are other functional size measurements standards that address measurement of each layer in a complex systems/ software solution.

2.4 WG7 Life Cycle Management

If any of the SC7 Workgroups deserve the title of the being in the 'premier league', it is this Workgroup. The topic of process description across the system and software development lifecycle, is dealt with by this Workgroup. They are responsible for two key standards that support the entire range of SC7 standards, namely, ISO/IEC 15288 (System lifecycle processes) and ISO/IEC 12207 (Software lifecycle processes). These two standards work hand in hand.

WG7 is also responsible for developing standards that support particular processes. An important example is ISO/IEC 29148 (Requirements Engineering).

2.5 WG10 Process Assessment

Process assessment methods emerged from the desire to assess the relative 'maturity' of organisations. Over the past two decades these concepts have been consolidated into a range of standards in the ISO/IEC 33000 series. Interestingly, they strongly support the 'process approach' so earnestly promoted in management system standards.

The most significant standards in the 33K series include ISO/IEC 33002 (Requirements for performing process assessment), ISO/IEC 33004 (Requirements for Process Reference, Process Assessment and Organizational Maturity Models) and ISO/IEC 33020 (Measurement framework for assessment of process capability and organizational maturity).

Process assessment models for a variety of management system standards are presently emerging. ISO/IEC 33072 is the process assessment model that supports ISO/IEC 27001 (Information security management systems – Requirements). More recently, ISO/IEC 33073 has been developed to support the assessment of the capability of processes underpinning ISO 9001 (Quality management systems — Requirements).

2.6 WG20 Software and System Body of Knowledge and Professionalization

This Workgroup focuses on developing such standards as ISO/IEC 24773 (Certification of software engineering professionals — Comparison framework), and a common body of knowledge for systems and software engineering as ISO/IEC 19759 (Software Engineering Body of Knowledge (SWEBOK)).

2.7 WG21 Information Technology Asset Management

It is interesting to learn that every piece of software used in your computer/notebook has a 'software asset tag', i.e. in conformance to the requirements produced by this Workgroup. A key standard in the ISO/IEC 19770 series is ISO/IEC 19770-2 (Software asset management - Part 2: Software identification tag).

2.8 WG24 SLC Profiles and Guidelines for VSE

The world of information technology is dominated the world over by tiny companies (5 – 25 persons). This Workgroup focuses on a range of standards in the ISO/IEC 29110 series that adapt the larger standards of SC7 (notably ISO/IEC 15288 and ISO/IEC 12207) to provide a portfolio of requirements-based standards tailored to the needs of very small enterprises.

2.9 WG26 Software Testing

As the name suggests, this Workgroup has assembled a range of standards to support the field of software testing, in the ISO/IEC 29119 series. The most notable members include ISO/IEC 29119-2 (Part 2: Test Processes), ISO/IEC 29119-3 (Part 3: Test Documentation) and ISO/IEC 29119-3 (Part 4: Test Techniques). The latter is an interesting document as it presents a 'recipe' book with examples of software test techniques and how to apply them.

3. Summing up

Of necessity, this article is simply a brief overview of the standardisation efforts of SC7 and its primary liaison partner – the IEEE CS. One of the great challenges we face is that SC7 standards have a low profile in the software development industry, apart from those sections of the industry that develop software and systems that are subject to regulatory obligations - notably military systems, telecommunications, medical devices, and avionics, to name just a few areas.

One area where the application of SC7 standards is noticeably absent is the field of business and commercial applications. The reasons for this will be considered in a subsequent issue of this newsletter.

Alastair heads up SAQI's Special Interest Group (SIG) on Information Technology and can be contacted at improveit@saqi.co.za

SAQI and SASQ sign Memorandum of Understanding

Xolani Mpahlwa of SASQ and Paul Harding of SAQI

By Team SAQI

We are pleased to announce that after a long period of discussion regarding the relationship between SAQI and the Southern African Society of Quality (SASQ) that we have now signed a Memorandum of Understanding (MOU) with SASQ.

Xolani Mpahlwa of SASQ seen in the photo led the negotiations on behalf of the SASQ board.

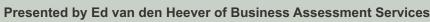Both organisations have the same purpose of promoting quality in South and Southern Africa and it was felt that this could be better achieved if both organisations had clearly defined roles in how this could be achieved by working together for the benefit of all. SAQI's role is seen as promoting quality amongst organisations across all sectors and SASQ's role is seen as promoting and recognising quality performance amongst individuals.

South Africa needs a professional body for recognising qualified quality practitioners and promoting quality as a profession. Both SAQI and SASQ have been working towards developing national quality training programs over the past few years in conjunction with the Services Sector Education and Training Authority (SSETA) and the Quality Council Training Organisation (QCTO) to establish the correct training materials. The quality fraternity are still waiting for these formal materials to be signed off by the QCTO three years after they were completed. At the request of many of its corporate members, SAQI launched its own career path development training program last year based on the materials found in the newly developed curriculum and in line with existing approved materials. SAQI saw the opportunity to maximise on these training programs but knew it needed to seek the support of SASQ to recognise the validity of its training program. SAQI also recognised that although it had offered individual associate membership to the organisation, the true home of individual quality practitioners should be with an appointed professional body.

SASQ is now in the process of applying for professional status with the South African Qualifications Authority (SAQA) and SAQI is fully supporting this application. We hope that this long overdue partnership will benefit the quality profession in South Africa that for too long has been seen as the "Cinderella" of the professions.

Where is my mentor?

By Jacques Snyders

As trainers and educators of quality at SAQI, we are often amazed about the level of basic understanding of quality from our registered trainees. By this I do not mean the entry level inspector, but from team leaders and supervisors, sometimes even technicians or engineers.

As a seasoned quality professional myself, and years of experience in the motor industries, it is quite astonishing how limited the understanding and practical application of the most simple PDCA problem solving cycle is in many organisations currently in South Africa. When asking questions to ascertain the level of quality maturity in some of our trainees, it is clear that even they, themselves are under an impression that quality "equals" an ISO 9001 "Quality Management System".

A basic concept such as collecting data on all the defects of the week, analysing the scrap data, and presenting the top 3 defects for the week is not in their quality vocabulary. Who taught me all of this during the 1990s? The answer is easy, "My Quality Manager"!

So when I ask trainees in my SAQI class, where their quality managers is, their answer to me is invariably "in the office", or "we see them when the auditors come around"! In one of the other articles in this month's SAQI newsletter Cobus Tomlinson, founder of the Performance Booster Program, talks about the importance of values, ownership and believe systems of people. Who will teach our young quality professionals all of this? The ISO 9001 requirements standard will definitely not. The standard tells us what must be done, not how to do it? That is why the use of good old fashioned Mentors is the answer. What does a young quality professional learn from a manager sitting in the office?

Our SAQI class room is a good example of the magnitude of our quality problem in South Africa today. Many organisations think quality is an ISO 9001 certificate. Most organisations do not have a culture of "Quality Circles" where people come together to solve problems. Many ISO 9001 certified organisations have continuous re-occurring corrective actions that are never solved, but blame their people as the root cause.

At SAQI, we are trying to make a difference. We encourage every young trainee, to adopt their SAQI educators as their personal mentor. We don't only train your young professional in theory, but in the practical application of quality in their own work environment. We try to support our trainees where we can, and trainees have our personal e-mail addresses. We know this is a mammoth task, but one that needs to be done. If we don't follow up who will?

If you feel, that you could contribute to being a mentor for a young quality professional, please contact the SAQI office, and put your name on our list of mentors. We are planning to have a quarterly event at the SAQI office, where we (the mentors) can network with quality trainees currently doing our Level 2 and Level 3 program, and where they have time to ask a mentor for assistance. We will be communicating soon, on the dates of our first mentor evening at SAQI!

Reasons why people are your 'quality problem' and how to fix it

By Cobus Tomlinson

PERFORMANCE BOOSTER
We grow people. People grow businesses.

Quality expectations

It is always fascinating to weigh up the pros and cons of quality versus price, speed of delivery and various other components which determine one's decision to purchase a product or service. It is the very essence of this debate that has resulted in such a wide variety of qualities in all aspects of life and consumerism. The obvious example which comes to mind, as a consumer is the influx of imported cheap, low quality products exported annually, throughout the world from countries notoriously known for product breakages and flaws. It seems that these goods are almost purposefully designed and manufactured to have a short life span. Yet, the consumer seems willing enough to purchase such items, despite the reputation and often previous bad experiences of such goods.

On the other hand, each company also has to decide what level of quality they wish to produce and even a company committed to producing flawed items can do so with excellence and precision.

The people factor

In the process of assessing employee performance the employer often struggles to comprehend why someone would submit sub-standard work rather than high quality work. This could be in the form of a report, a sales process, customer service, the delivery of a product or the oversight of obvious errors and flaws which are then supplied to the client. A genuine error, quickly corrected and communicated via the right channel is one thing, but repeatedly delivering poor quality is quite a different scenario.

Companies spend large amounts of money on skills training, complying with ISO / SABS standards, and other such compliances, ensuring that the work place is safe. They also ensure that people have all the resources including tools and that processes are in place every step of the way. Despite all these measures along come one human being and all of this planning goes pear shaped at a rapid pace.
So why is the human being inclined to repeatedly submit and then hide or pretend everything was done to standard? Some of the reasons are:

1. An underlying belief that they will not get caught out: the human race seems to be programmed to take chances, short cuts and try to get away with things, even hiding the truth to cover up their own errors and those of others
2. An array of excuses backed up by lame reasons as to why the problem occurred, which they truly believe are valid and totally justifiable
3. A genuine lack of understanding as to the exact repercussions for the client and the company and a general disinterest in becoming aware of this
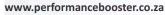4. An inability to take responsibility, ownership and be accountable for their actions, as a strong value base from which they operate
5. People allow their personal lives, mood swings and general feeling about things to directly impact their quality of work. They also feel justified to take their vendettas out on the company or any person they feel has unfairly wronged them.

The problem for management is that they have limited tools in dealing with these, often very expensive, poor quality standards and errors in delivering excellent service. They basically have either FEAR or INCENTIVE policies, both of which are difficult to enforce consistently and require well thought through and managed performance appraisal systems. The nature of business is also at times so fast paced that we are likely to overlook the small errors, choose our battles in the name of 'saving time' and end up with a far bigger problem on our hands further down the line.

The author, Cobus Tomlinson, potential development specialist of many years and founder of the Performance Booster Program, says 'Unless we approach this problem from 'below the waterline,' where the problem has arisen from, we are forever putting plasters on headaches. We want to determine the cause of the headache, meaning we want to get to what is creating the breakdown between the initial instruction and the eventual delivery. We have found overwhelmingly that this breakdown occurs within the psyche of individuals commonly experienced as an attitude or mind set.'

Unfortunately management seldom has the insight, tools or capacity to address individuals from this perspective. This is the very reason life, business and executive coaching have become a popular intervention for companies. The Performance Booster Program addresses the individual from within, building confidence and providing tools for intrinsic motivation aligning their personal goals with those of the company. This has proven to be a most effective approach with some clients reporting the saving of millions in terms of new levels of quality products produced, huge reductions in errors as a result of more actively engaged employees. When all the individuals in a team are aligned there is movement and momentum, supported by honesty, accountability and a genuine interest in producing excellent results, as they understand that they personally profit when the company profits.

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www.performancebooster.co.za

Kobus and Mel Tomlinson

PERFORMANCE BOOSTER
We grow people. People grow businesses.

THE PERFORMANCE BOOSTER PROGRAM

Companies are always looking for a new way to inspire and motivate their staff, increase productivity and staff satisfaction. The Performance Booster Program is based on the principles that people need to be given the tools to inspire and motivate themselves, to affect and change their own behaviour and to make emotionally intelligent decisions about their own lives. If our employees can take responsibility for their own happiness and well being, companies will thrive.

EXPECTED OUTCOMES FOR THE INDIVIDUAL ATTENDEE

- A good understanding of self motivation
- General improvement of well being
- Improved emotional intelligence
- Better time management
- Increased self confidence
- Increased self knowledge
- Clearly defined goals
- Improved attitudes
- Renewed focus
- Increased work performance

EXPECTED OUTCOMES FOR THE TEAM/DEPARTMENT OR COMPANY

- Greater team cohesion
- Less drama or emotional outbursts
- Boosted income / turnover / sales / production
- Improved communication
- More positive inputs from team members
- Better atmosphere at work
- Identify people who do not wish to be team players
- Increased team performance

WHO SHOULD ATTEND?

The only requirement for the program is literacy. All levels and departments will benefit. We recommend that companies apply a top down approach: Management, sales, administration and production teams will all benefit. Groups can be a combination of various departments or grouped per department.

HOW IT WORKS

Performance Booster is ideally run as a 3 day intervention, over a 6-9 week period (3 x full training days, with 2-3 weeks in between trainings). It can also be run as 3 consecutive days. Prior to attending the Performance Booster Behavioural profile (behavioural learning instrument) must be completed and submitted.

Follow up interventions will be rolled out as The Performance Booster Board Game, a fun and effective learning tool. Delegates will also have the option to subscribe to monthly Performance Booster Newsletters to keep them motivated.

ADDITIONAL SUPPORT

Performance Booster strives to offer their clients a supportive environment for growth. We understand that change is not a once off event, but a process. It is highly recommended that a Performance Booster Refresher is included three months after the initial programme. The Performance Booster Game is used to recap the material, experiences are shared and new tools are imparted to further embed the initial learning. Delegates are invited to join our Performance Booster Delegate Face Book group for further support and motivation.

WHEN AND WHERE IS IT HELD

Kindly request the annual calendar for public Performance Booster Programs in your area or visit www.performancebooster.co.za. These may be attended by anyone wanting to develop themselves. Companies are welcome to send a few employees at a time. Corporate Performance Booster Programs include 2-3 full days of facilitation plus a Refresher, 3 months later. Time Booster and Team Booster may be added. The Performance Booster team of licensees are able to travel to any destination in South Africa, Africa or internationally.

Performance Booster (Pty) Ltd offers licenses to companies, with full training and the rights to use the intellectual property as an in-house development programme.

www.performancebooster.co.za

Join us for a SAQI Plant tour

SAQI invites its members to attend a SAQI plant tour for 2017. This tour will be held in conjunction with VOITH Turbo.

Date: Wednesday 23 August 2017

Time: 10:00

Venue: Voith Turbo in Boksburg, Gauteng

Join us for a LEAN JOURNEY to excellence with the VOITH Team!

Registration:

- Attendance is free
- Limited number of attendees
- Registration compulsory
- Maximum of 2 delegates per company

Please contact Vanessa du Toit on vanessa@saqi.co.za to book your seat.

Further communication will be sent to registered individuals.

New Preferential Procurement Regulations Likely To Be Challenged

By Terrance M. Booysen and reviewed by Bulelwa Mabasa (Werksmans: Partner)

In his State of the Nation Address in 2017, President Jacob Zuma noted the intention of the South African government to influence the behaviour of the private sector and to drive economic transformation. He stated that this objective would be achieved through the government playing a role in the economy through legislation, regulations, licensing, budget and procurement, as well as Broad-Based Black Economic Empowerment ('B-BBEE') imperatives.

Using the term 'radical socio-economic transformation', President Zuma referred to the need for fundamental change in the structure, systems, institutions and patterns of ownership, management and control of the South African economy in order to correct their skewed nature.

> *"We need to give more meaning to procurement processes and ensure that 30% of government Procurement is set aside for SMEs and 100% black-owned companies...Opportunities have been closed and taken away by existing big business and by monopolies...We need to look at ways of freeing that up."*
>
> *Cyril Ramaphosa (Deputy President of South Africa)*
>
> *06 February 2017*

One of the most recent means to facilitate the government's drive for economic transformation is the promulgation of revised Preferential Procurement Regulations ('the Regulations'), which became effective on 01 April 2017, and which are surrounded by some controversy.

Background to the Regulations

The Regulations arise from the Preferential Procurement Policy Framework Act, 2000 ('PPPFA'), which gives effect to the constitutional mandate for the application of preferential procurement in South Africa. The PPPFA applies to those organisations -- both local and international -- wishing to do business with South Africa's 'organs of state'.

Even if organisations are not wanting to do business with organs of state, they may well form part of the supply chain of those organisations to whom the PPPFA applies directly, and therefore need to be aware of its scope and provisions.

According to the PPPFA, organs of state must implement their preferential procurement policies within a certain framework, which will stipulate that a preference point system must be followed. Specific points are allocated for specific goals, which include contracting with people who have been historically disadvantaged by unfair discrimination on the basis of race, gender or disability.

The PPPFA provides for regulations to be promulgated to achieve its objects. It is these regulations that give substance and meaning to preferential procurement in South Africa.

What has changed?

Since the previous iteration of the Regulations, which were signed into law in 2011, the *Codes of Good Practice for B-BBEE* ('the Codes') have come into effect and the *B-BBEE Act, 2003* ('B-BBEEA') has been amended; seeking to address the legacy of racist apartheid policies and to enhance the economic participation of black people in the South African economy.

The procurement element in the Codes is heavily weighted towards procuring from black-owned businesses and the revised Regulations are better aligned with the amendments to the B-BBEEA and the Codes, providing a mechanism to empower certain categories of tenderers through procurement and increasing the possibility of B-BBEE compliant enterprises with more favourable B-BBEE contributor levels to win higher value government contracts.

The Regulations which introduce the most significant deviations from the previous version are Regulation 4, Regulation 5, Regulation 6, Regulation 7 and Regulation 9. These Regulations *inter alia*:

- introduce pre-qualification criteria for procurement with the state and its organisations;
- provide for revised functionality scoring rules;
- increase the Rand value for the application of the preference point system in respect of the 80/20 principle from a maximum of R1 million to a maximum of R50 million;
- increase the threshold for the application of the preference point system in respect of the 90/10 principle from transactions above R1 million to transactions above R50 million; and
- make subcontracting compulsory where it is feasible for a minimum of 30% of the value of the contract to be subcontracted to specifically designated groups.

The Regulations are controversial

The Constitution of the Republic of South Africa, 1996 ('the Constitution') provides for and encourages preferential procurement. In fact, section 217 of the Constitution focuses on fair, equitable, transparent, competitive and cost-effective procurement by government, while allowing for preference to be given to certain designated groups in allocating contracts to protect or advance those people who have been disadvantaged by unfair discrimination. Section 217 is not in contravention of Section 9 of the Constitution -- which forms part of the Bill of Rights -- and which enshrines the right to equality of all people. Section 9 (2) states *inter alia* that, in order to promote the achievement of equality, legislative measures may be taken to protect or advance persons, or categories of persons, disadvantaged by unfair discrimination.

The potential and resultant effect of the implementation of the new Regulations is that the preference afforded to, *inter alia*, black persons in advancing the economy and the objects of the PPPFA may lead to the possible exclusion of certain groups of people through the pre-qualification criteria. The new Regulations therefore signal a radical shift in favour of enforcing the B-BBEE project which has been slow, with the economy largely still in the hands of the white minority despite the B-BBEE Act being implemented already for six (6) years, with little impact.

The PPPFA specifically aims to limit the effect of a tenderer's B-BBEE status through the 80/20 and 90/10 weighting system, which must be used in evaluating and awarding tenders.

However, the Regulations now allow higher priority to be given to B-BBEE status and specific goals of organisations to the extent that organs of state can effectively exclude certain categories of tenderers from submitting their bids at all. By contrast, the PPPFA clearly retains price as the primary factor in awarding government tenders, even though it does take cognizance of the B-BBEE status of bidders.

The retention of the 80/20 and 90/10 scoring principles implies that National Treasury will continue -- to an extent -- to encourage cost savings by organs of state, since price must still be the primary determiner in terms of which tenders are awarded; it must make up either 80% or 90% of the total points. The amendment to the upper threshold amount for the application of the 80/20 scoring principle to R50 million means that for all tenders below this amount, a price premium of 20% will be accepted. The B-BBEE status level of a great number more service providers will now become a much bigger determinant of who conducts business with the State. Those benefitting from the Regulations could obtain the full 20 points on the basis of their B-BBEE status. In addition, they could be awarded a contract as a result of the fact that they sub-contract to a designated group. The weight of the socio-economic factors could therefore be more than the 20% contemplated in the PPPFA. These factors will not have the effect of increasing price as the requirements of section 217 of the Constitution, which envision the procurement of goods in a manner that is cost effective, cannot be undermined or overridden by the need to promote representation. The State must be mindful to balance considerations of equity and cost-effectiveness. It is likely that this aspect of the Regulations -- and whether or not they are in accordance with the PPPFA -- will also be challenged in the future.

Quality in Schools

Many of our readers are parents themselves or interact often with children. We have asked our education editor, a retired headmaster, to share thoughts on how to get Quality principles and practices instilled in young people.

By Richard Hayward

"What would you like to be one day?"

Ask certain children the above question and they can't stop talking! They've thought about their future and they become so excited. Other children haven't given it a single thought.

In South Africa today, we're aware of the high level of unemployment and how difficult it is to get accepted into a quality tertiary institution. The time to start thinking of a child's future career is now.

In Western Australia, the Department of Training and Workforce Development makes the cogent point that career planning is a continuous never-ending process. Whether you're at school, about to leave secondary school or already working, there's a need to look at career options. The Australian Workforce Development Department suggests these four steps:

Step 1: Know yourself
Step 2: Find out
Step 3: Make decisions
Step 4: Take action

If a child follows the steps, there's a strong likelihood of making good career choices.

1 Know yourself

Most children aren't shy to let family and friends know what they like and what they don't like. Occasionally throw in this question, "... and what would you like to be when you grow up?" Remember that their choice of career – especially with younger children – might change every few months! Whatever their choices, be non-judgmental. It's their lives.

To help children make career choices, encourage them to take part in extramural activities. Many schools encourage the learners to take part in at least one activity every term. Besides developing the children's social skills, they are exposed to new experiences that could direct them towards careers.

End-of-term report cards can give insight as to areas of school work that children like and show strong ability. Teachers can also add sound observations of possible career choices. Ask them.

2 Find out

Encourage children to talk to people who are in jobs that they find interesting. Maybe those folk might be willing to let themselves be work shadowed. An excellent project in this regard is the, "Take a girl to work" programme. Teenage girls spend a day or two in the real work environment. They get a senses of whether or not a particular career is to their liking.

Technikons and universities have Open Days. Visit them to learn what career opportunities are opened by doing certain courses, degrees and diplomas. Increasingly, high schools across the country are inviting tertiary institutions to put on displays at their schools. Schools use Life Orientation lessons to make students aware of career options.

3 Make decisions

The third step involves making broad decisions as to the career path. Six simple career paths that can be used at a primary school-age level are:

· Business (possible careers : accountant, clerk, manager, lawyer)
· Creative   (possible careers : actor, artist, dancer, designer, writer)
· Fixing/building/technology   (possible careers : builder, electrician, technician)
· Health   (possible careers: doctor, nurse, speech therapist)
· Helping   (possible careers: priest, social worker, teacher)
· Nature   (possible careers: gardener, game ranger, zoologist)

Decisions are dependent on interests and skills. Scholastic ability can be a huge but not absolute determining factor. (Think of people such as Albert Einstein and Winston Churchill's mediocre school results and what they achieved in later life.)

A cruel factor in deciding a child's career can be home circumstances. There could be a lack of financial resources to pay for any post-school education. Also, the parents might not motivate the child to pursue a career when there is so much budding potential.

4 Take action

Children need reminding that a long-term goal such as, for example, becoming a lawyer has many preceding short-term goals.

I was talking to a former pupil who is now in his mid-thirties and is already a senior partner in a law firm. In congratulating him, he reminded me of a chat we had when he was about ten years old. Robert had told me then that he wanted to become a lawyer. Also, he had told me that to get into university, his mother had encouraged him to, "Work like a devil for every cycle test because only the cream make it into law school!"

Get children to dream of their ideal future careers. After the dreaming, encourage them to get up and do. Too often, we hear of people who've spent their lives doing work that they don't like. They complain that they work simply because they have to – to put bread and butter on the table.

How wonderful it is when children are guided towards careers that they truly love. Then Harvey Mackay's words will come true:

*Find something you love to do and
you'll never have to work a day in your life.*

Reference

http://www.careercentre.dtwd.wa.gov.au/career

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All courses offered by the South African Quality Institute are presented in association with other course providers and are available to all organisations and individuals. 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 discount applies to SAQI members. For more information or to register contact Vanessa du Toit at (012) 349 5006 or vanessa@saqi.co.za

1. Each course listed on the training schedule can be completed individually or form part of the overall three levels of certification.
2. 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.
3. The courses listed below form part of a specific Certificate and all modules should be successfully completed to qualify for the Certificate.
4. Delegates are advised to start on Level 2 before moving on to Level 3.
5. All courses completed previously will receive credit when proof of successful completion is received.

ALL PRICES EXCLUDE VAT

Code	Course	Days	Cost	Jun	Jul	Aug	Sep	Oct	Nov	Dec
L2	**SAQI Certificate in Quality Control***	10	R 18,874							
B41	Introduction to Quality Control	2	R 4,277		24-25		18-19	16-17		
B90	Introduction to Statistical Techniques	3	R 5,160		26-28		20-22	18-20		
B91	Introduction to Statistical Process Control (SPC)	3	R 5,160	19-21		14-16		2-4	13-15	
B79	A3 Problem Solving	2	R 4,277	22-23		17-18		5-6	16-17	
L3	**SAQI Certificate in Quality Assurance***	13	R 24,034							
B48	ISO Requirements 9001:2015	3	R 5,160				4-6			
B24	Knowledge Management	2	R 4,277				7-8			
B16	Internal Quality Auditing	3	R 5,160				27-29			
B92	Advanced Quality Techniques	3	R 5,160					30-1		
B77	Advanced Product Quality Planning (APQP)	2	R 4,277						2-3	
L4	**SAQI Certificate in Quality Management***	15	R 31,706							
B38	Development of a QMS	5	R 10,693	5-9						
B01	Cost of Quality	2	R 4,277	29-30						
B58	New SA Excellence Model	2	R 4,277		13-14					
B74/B76	Lean for Manufacturing/Service Industries	4	R 8,182			1-4				
B93	Policy Deployment (Hoshin Kanri)	2	R 4,277		11-12					
GB	**Six Sigma Green Belt**									
GB1	Sig Sigma Green Belt Week 1 + Week 2	8	R 20,000		3-6	21-24		9-12	20-23	

* Must successfully complete all modules listed to qualify for the certificate.

INHOUSE

Above and beyond the courses listed on the left, we can also provide your company with inhouse training on the following topics.

- Incident and Accident Investigation (B82)
- Introduction to ISO14001:2015
- Introduction to OHSAS 18001
- Inventory and Warehouse Management (B86)
- Lean Six Sigma Yellow Belt (YB)
- Lean Six Sigma Black Belt (BB)
- Production Planning and Scheduling (B85)
- SHEQ Internal Auditing (B49)
- Supply Chain Management (B84)
- IT Process Improvement courses

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For a list of other courses provided, please visit www.saqi.co.za
Inhouse courses provided to 10 or more delegates