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The flipped classroom

Education Africa

ICT training

Adieu to Prof Jansen

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The bug in the system

In this August issue we have two articles highlighting the importance of skills development in cybersecurity and IT protection. As serendipitous irony would have it, I also came across a survey titled ‘The Nokia malware report published by the African Media Agency."

The Nokia malware report shows a surge in mobile device infections in 2016.

- Mobile device infections rose 96% in the first half of 2016, reaching an all-time high in April.
- Smartphones accounted for 78% of all mobile network infections.
- Malware is becoming more sophisticated, utilising multiple methods to bypass safeguards and take permanent control of devices.

Issued twice per year, the report examines general trends and statistics for malware infections in devices connected through mobile and fixed networks.

In addition, devices based on the Android™ operating system were the most targeted mobile platform by far, representing 74% of all mobile malware infections.

The report also highlighted the emergence of new, more sophisticated malware that can be more difficult to detect and remove.

Key findings of the latest Nokia Threat Intelligence Report include:

- A wide range of malware, including ransomware, spyphone applications, SMS Trojans, personal information theft and aggressive adware was noted.
- One out of every 120 smartphones had some type of malware infection.
- Android smartphones were the most targeted mobile platform, accounting for 74% of all malware infections compared to Windows/PC systems (22%), and other platforms, including iOS devices (4%).
- The number of infected Android apps in Nokia’s malware database soared from 5.1 million in December 2015 to 8.9 million in July 2016.
- Downloaded mobile applications are a key conduit for malware attacks. The Nokia Threat Intelligence Lab detected infected copies of an extremely popular mobile game within hours after they were posted on untrusted third-party download sites.
- Malware is becoming increasingly more sophisticated, as new variations attempt to root the phone in order to provide complete control and establish a permanent presence on the device.
- The top three mobile malware threats were LiquiGold.A, Kasandra.B and SMSTracker, together accounting for 47% of all infections.

Data in the Nokia Threat Intelligence Report is aggregated from deployments of the Nokia NetGuard Endpoint Security solution around the globe, covering more than 100 million devices, including mobile phones, laptops, netbooks and Internet of Things (IoT) devices.

As our schools scurry to keep up with international e-learning trends, this issue will no doubt become the new ‘topic of concern’.

Yours in cybersecurity

Editor
In the education sector, the JCSE reports that besides the normal skills required for banking, these include computer programmers, process engineers and generally ICT systems analysts, software developers, ICT project managers, computer network technicians and network analysts.

According to the Banking Sector Skills Plan, entrants into the banking market must understand technology and the shift in the way of doing business in the sector. As a result of technology, most scarce skills are not directly related to finance, says the JCSE. Scarce skills are much like those of the banking sector, with continued increasing demand for ICT systems analysts, software developers, programmer analysts, developer programmers, applications programmers, and database designers and administrators.

Safety and security is one of the fastest growing sectors in the ICT arena, and here there are a number of glamorous-sounding occupations in short supply, including cyber-crime investigators and incident response management, likely the fastest-growing segment in this sector.

Candidates with cloud security skills are most in demand but also most challenging to find. According to a report from Skyhigh Networks and the Cloud Security Alliance (CSA), to resolve the skills shortage in the security sector, 37% of businesses believe that hiring junior IT professionals and investing in training is the most effective way.

Top occupations in demand

For those with the drive to move into IT, there’s good news. IT skills feature high on the South African government’s “National Scarce Skills List: Top 100 Occupations in Demand”, which cites a scarcity of such diverse occupations as ICT systems analysts, software developers, ICT project managers, computer network technicians and network analysts.

And while it is true that a great many companies tend to use service providers to fill IT skills gaps, forward-looking organisations are creating career paths for emerging disciplines such as cloud, analytics and data science, says Gartner.

“More specifically, the 2016 JCSE ICT Skills Survey found that big data design and analytics are high on any corporate’s most-wanted skills list both now and in the future, but that people to fill these posts will be very scarce, which it describes as worrying,” Joubert added.

“Demand continues to be high for database management systems skills, followed by customised and bespoke software.

The JCSE also found very little growth over the past four years in the animation, mobile and gaming categories.

Demand by sector

The JCSE Survey places banking as one of the top sectors on the hunt for rare skills, which include:

• Digital designers
• Systems engineers (process engineers, systems architects, IT system developers)
• Forensic/fraud/security specialists
• Business analysts
• Digital forensic analysts and investigators
• Mobile and digital specialist
• Systems integrator/systems architect

According to the Banking Sector Skills Plan, entrants into the banking market must understand technology and the shift in the way of doing business in the sector. As a result of technology, most scarce skills are not directly related to banking. These include computer programmers, process engineers and generally people in the ICT industry. This paradigm shift to a digital dispensation requires people in the ICT industry. This paradigm shift to a digital dispensation requires people in the ICT industry.

“There’s also a big gap in supply and demand in infrastructure design/management, process management and information security, with the latter outranking all others, as many companies are increasingly concerned about security.”

Tell us more about the live / interactive functionality of the platform.

Empower educators with the best knowledge and tools available to assist in shaping future generations.

The Eduvation Network’s Shari Joseph

The mind behind the innovation of Eduvation

Education, particularly in the context of South Africa, requires a constant revolution to ensure sustainability and relevance. Shari Joseph, owner of online learning platform, The Eduvation Network (TEN), shares her passion for innovative education.

Tell us more about yourself and your interest in education?

I have always had a love for education, and grew up in an environment where education was highly valued. My parents did their utmost to make sure I had access to the best education possible.

After completing my honours in Development Studies, and finally my master’s in Education Policy, I worked at Wits in the Centre for Research in Education and Labour Unit. Here I realised the need for continual training for educators and I was able to pin point what needs be done to improve teacher training in South Africa. Today, at the age of 26, I run The Eduvation Network with a team of like-minded people and I can’t imagine doing anything else.

What sets TEN apart from other online learning institutions?

We are the first online platform to exclusively focus on online educator development and SACE-endorsed teacher training courses.

What was your motivation behind starting TEN?

To supply training solutions for educators and professionals that can be done anytime and anywhere! And to empower educators with the best knowledge and tools available to assist in shaping future generations.

Tell us more about the live / interactive functionality of the platform.

- The interactive live chat allows learners to chat to Education staff and ask questions at any time.
- The TEN platform allows learners to become friends, share files and communicate with one another - like a social network.
- The online classroom functionality allows learners to participate in live classroom events and forums where they can watch presentations, interact with instructors and peers via webcam, and participate in polls.

Why should schools enrol their teachers?

All staff developmental needs are different – with TEN, you are giving teachers the choice as to what specific area of education they want to be sharpened in. No two teachers have to complete the same course! Teachers can work at their own pace and schoolscan track their staff’s progress, and download reports.

In 2016 it’s not enough to simply keep up to date with the times; there is a distinct need for innovation and development in the same breath. Don’t get left behind!

Visit www.eduvationnet.co.za to find out more.
Women’s month bonus for ISPA SuperTeacher competition

Women’s Month 2016 sees the annual ISPA SuperTeacher of the Year Competition emerge as an all-women affair as the finalists in one of the country’s longest running ICT in education competitions are announced.

The ten women who will travel to Johannesburg to compete for the titles of ISPA SuperTeacher of the Year, ISPA ChampTeacher of the Year and ISPA TechTeacher of the Year are as follows:

Erika Esterhuizen (St Andrews College), Sadike Kekana (Toronto Primary School), Mohokudu Machaba (Ngwanamagom Primary), Kelebone Mmolweni Magoaga (Toronto Primary School), Matema Jacobeth Malatji (Diopong Primary School), Leopata Flora Myana (Makhetela Primary School), Mandy Caroline Mashilo (Mqobi Primary School), Lepota Flora Mpyana (Makeketela Primary School), Mandy Caroline Mashilo (Mogologolo Primary School), Lindiwe Ngwenya (Zonkizizwe Secondary School), Daphney Matshidisho Thoka (Modimolle Primary School).

After participating in educator IT training managed by CoZa Cares Foundation and sponsored by the Internet Service Provider Association of SA (ISPA) and its members, the women’s closing projects were judged to be the best amongst the many received that demonstrated the value of the teachers’ newly acquired ICT skills.

The judges of the online competition designed and developed by CoZa Cares Foundation, comprised a strongly representative cross-section of the South African education and ICT sphere. They included Sarah-Jane Capazario (ISPA), Dorcas Thabane (ISPA), Jenny King (e-Schools Network), Marcus Lamola (Matthew Gonike School of Leadership and Governance – MGLG), Neo Mthobi (Department of Basic Education, Pretoria), Megan Rademeyer (SchoolNet SA) and Clinton Walker (Western Cape Education Department).

Speaking on behalf of the judges, Ms Capazario said, “The projects we reviewed all demonstrated that ICT in education has reached something of a tipping point. It’s clear that more educators are viewing technology as a legitimate teaching aid, and are incorporating ICT into their lesson plans in interesting ways. The level of creativity really shone brightly this year.”

To date, ISPA’s Train the Teacher project – managed with the assistance of CoZa Cares Foundation – has equipped almost 5 000 teachers with ICT skills thanks to continued support from ISPA’s members. In the last three years alone, some 750 educators and district officials have been trained in different ICT courses. These include the CoZa Cares courses accredited by the South African Council for Educators (SACE): ICT Leadership and Change Management, ICT Support and Operations, Digital Confidence Level 1 and Level 2, Your Online Persona and Device integration.

“The founding philosophy of the ISPA SuperTeacher project is similar to the philosophy of Ubuntu. It’s all about contributing to the benefit of one’s wider community. Teachers are encouraged to be sharers of skills and experience. That willingness to broadcast new knowledge and to mentor others has been a strong feature of ISPA’s teacher training,” said Fiona Wallace, CoZa Cares Foundation CEO.

South Africa’s leading annual Internet industry gathering, Web Week marks its 15th year by returning to Johannesburg from 19 to 23 September 2016. An annual fixture of the closing night gala dinner is the announcement of the ISPA SuperTeacher of the Year from the ten competition finalists. Tinny Molepo of Motshetedi Combined School, Limpopo, was ISPA SuperTeacher of the Year 2015, while the 2015 ISPA ChampTeacher was Matere Lebakakala of Toronto Primary School, and the 2015 ISPA TechTeacher of the Year was Matthew Hains of Woodlands International College.

Aside from their iWeek attendance, which is a life-changing experience for many, the three competition winners also receive more tangible gifts. The Mighty Pen EDUCATION Magazine (http://www.themightyhyena.co.za) will provide three gift subscriptions for the three winners, and an opportunity to publish their own articles. Math teaching resource Matific is also sponsoring a prize for each of the winners, while Mustek is sponsoring three Mecer Executive Series tablets for each of the winners. WASPA is sponsoring accommodation for the teachers as well as a special professional development training session on assisting learners to navigate ‘mobile space’ safely.

Finally, according to ISPA chair, Graham Beneke: “It’s become an acknowledged fact that many past ISPA SuperTeacher award recipients started their training without ever having touched a mouse. They then go onto great things, which include revolutionising teaching in their classrooms and sphere of influence.”

Ensuring Safe and Secure Networks for Learning Environments

Long gone are the days where students were prohibited from using their personal devices and only approved users were granted network access. Today’s digital classrooms require connectivity for almost any device. From primary to upper grade levels, students often bring more than one device with them each day. The opening of networks to accommodate the growing number of devices fosters inevitable security risks which could lead to data breaches and data leaks of sensitive student and staff personal information.

We understand the unique challenges you face in delivering engaging, relevant, and meaningful learning opportunities to students while maintaining a high level of network security to protect data and meet compliance standards.
Cybersecurity skills shortage requires new approach

By Trevor Coetzee, regional director, South Africa and sub-Saharan Africa, Intel Security

Businesses all over the globe are battling to close the cybersecurity skills gap as an increase in cloud computing, mobile and the Internet of Things fuels a rise in cyber terrorism. A recent global skills study by Intel Security and the Center for Strategic and International Studies (CSIS) revealed that 82% of IT professionals believe there is a shortage in the cybersecurity workforce.

While the study surveyed businesses in other countries, we are seeing the same problems in South Africa, where 32% of organisations have experienced cybercrime and 57% believe they will be affected in the next two years.

Because the shortage is a worldwide problem, businesses are not only competing locally for scarce skills, but also with their global counterparts who headhunt skilled practitioners and entice them with premium salaries. The gap left by a mass exodus of skills leaves businesses vulnerable to attack.

Considered broadly, the situation appears quite dire. The tactics used by cybercriminals evolve every day and it’s difficult to keep up; the education system is not producing industry-ready talent; government is not investing enough resources into skills development; and a weak economy is forcing businesses to cut training budgets, which puts existing staff under more pressure.

But there is a way out of this. Consider the following four areas of development that could make a significant difference.

Ongoing training and clear career paths

Internal training seems to be a double-edged sword. We can invest in skills training and risk losing those staff members to higher-paying positions. Or we don’t train staff and risk them leaving anyway for better opportunities, while leaving the business exposed because we don’t have sufficient skills to protect the network.

But training is crucial and it’s a risk we have to take.

What is cybersecurity?
Cybersecurity, also referred to as information technology security, focuses on protecting computers, networks, programs and data from unintended or unauthorised access, change or destruction.

Governments, military, corporations, financial institutions, hospitals and other businesses collect, process and store a great deal of confidential information on computers and transmit that data across networks to other computers. With the growing volume and sophistication of cyber attacks, ongoing attention is required to protect sensitive business and personal information, as well as safeguard national security.

Large corporations are common targets. In many cases this is aimed at financial gain through identity theft and involves data breaches such as the loss of millions of clients’ credit card details. Medical records have been targeted for use in general identity theft, health insurance fraud, and impersonating patients to obtain prescription drugs for recreational purposes or resale.

Not all attacks are financially motivated however; for example security firm HBGary Federal suffered a serious series of attacks in 2011 from hacktivist group Anonymous in retaliation for the firm’s CEO claiming to have infiltrated their group, and Sony Pictures was attacked in 2014 where the motive appears to have been to embarrass with data leaks, and cripple the company by wiping workstations and servers.

In March 2013, international top intelligence officials warned that cyber attacks and digital spying are the top threat to national security, eclipsing terrorism.

The Intel Security survey found that hackathons were a great way to identify talent and develop skills.

The problem, however, is that once we’ve fostered this interest, students enter a tertiary education setup that does not give them the opportunity to specialise in cybersecurity, or at a minimum, a very limited scope that includes IT security. Rather, they walk away with computer or information science qualifications and have to find the money to pay for security certifications – unless they’re lucky enough to land a job that has a solid training programme in place.

And herein lies another problem. Companies looking for cybersecurity skills want a tertiary qualification as an entry-level requirement when, in reality, anyone can be upskilled – with relevant baseline qualification, such as a CISSP and experience or exposure to generalist IT environments, people could become good all-round security practitioners. Once we lower the barriers to entry, we’ll widen the pool of available talent and be able to offer opportunities to those who cannot afford tertiary education.

Diversity the industry
Along with lowering barriers to entry, we also need to diversify the industry to attract more female and minority talent. Cybersecurity is still a male-dominated industry but if we make it more attractive to women and minorities, we’ll also widen the talent pool.

Do more with less
I’m not talking about less skills but rather about being smarter with the skills we do have. Too many IT resources are bogged down by tasks that could be automated. The Intel Security study identified intrusion detection, secure software development and attack mitigation as among the most in-demand skills, yet IT departments are overwhelmed by many functions that can be consolidated and automated.

The skills shortage, coupled with the burden of unnecessary tasks, is putting a lot of pressure on IT staff, who are at risk of burnout. By automating some of the day-to-day tasks, IT resources will be freed up to focus on more advanced threats to the organisation.

At the end of the day, government and the private sector are equally responsible for ensuring a stable and consistent supply of cybersecurity talent through more modern education programmes, ongoing training and development of staff, and through changing the perception of the industry.

The reality is that every single industry needs cybersecurity expertise, especially as more local and African businesses move into the cloud and adopt mobile working practices. If we are to make any difference to the massive skills shortage, we need to make immediate and long-term changes to attract and retain the best talent possible.
Moving from the traditional role of teaching to facilitating – and some technology in-between

By Adrian Hossell, secondary school English teacher

If you are asked to describe the typical image of a classroom, you would most probably say that you would find rows of learners, a teacher in the front, books, desks and some sort of lecture type of lesson. Most of us could easily identify with this image, the typical teacher-focused environment.

We however know that this is no longer the case. A teacher’s role is becoming more fluid. A teacher has to adapt to the many roles that are demanded. The role of a teacher is perhaps moving towards being a facilitator. There are thousands of resources that have become available in the classroom so we no longer need to strictly adhere to the textbooks set out before us. An effective teacher today is one that can assimilate what exactly is useful in the classroom and what can be utilised to add to the learning experience of the learners. A key guide to doing this is to make sure that what is presented to the learners is relevant. One needs to ask whether the learners can relate to what is being covered, and if not, how we can adapt what we do so that it becomes relevant. Because of this, the teacher facilitates the learning process.

The modern classroom today caters for learners to discover through exploration and it really puts the learning process into their hands. The teacher’s role is to ensure that the learners have the access to learn through exploration. This is closely linked to the Flipped-Classroom approach that is gaining speed in many schools throughout the world. The Flipped-Classroom puts teaching and learning into the learners’ hands. Here the learners have access to learning and studying in any environment.

This type of blended-learning as it is often referred to, delivers the teaching function to learners often outside of the classroom. This in return provides and environment for a learner to go through the content at their own pace. There are various ways to achieve this. The first is to have the content online. A platform will be needed for this, it may be a simple blogging site or something more developed for the environment such as Moodle, or Google Classroom. Teachers may often record themselves presenting a lesson and post it online. The learners are then able to go through the content at their own pace. A teacher’s involvement in a Flipped Classroom is more individual and far less didactic.

To the new teacher, or even an experienced teacher who has only taught in one method, this is a massive leap. The best advice here is to start small. Start with simply placing a lesson online through a blog or other multimedia tools. Lessons can be recorded and uploaded onto a platform at a later stage.

A teacher will need to adapt their methods of flipping the classroom according to the environment that they find themselves in. One must consider the socio-economic environment and what resources are available. The best way is to simply consider how content delivery can be extended outside of the classroom environment. Once again, the focus should be on the value being added to the teaching process, and not the technology itself. A teacher who facilitates effectively will take what needs to be taught and develop the learning process so that it allows the learners to learn through exploration and enrichment.

Technology opens doors for education, but collaboration unlocks them.

Technology is not a new word. The ancient Greeks coined it to define the application of knowledge in a systematic way, creating new ideas. “Technology has always been parcel to society’s fortunes,” as the computer scientist Alan Kay once remarked. “Technology is anything invented after you were born.” Everything before that is just how things got done.

Today’s students are born into a world of computers, smart devices, the internet and other remarkable achievements. This has begun to touch every sphere of South African society.

Ravi Govender, Education Lead at Dell South Africa, is very encouraged by the momentum he sees every day. “There is an explosion of devices among the youth. We never had access to technology like today and we must take advantage of that. There isn’t a job out there that isn’t or won’t soon be reliant on modern technology. These skills should be established and enhanced at schools.”

The challenge is how to meet those expectations in the education arena, but it’s not just about training future generations to engage the 21st century. Modern technology is making education more accessible, potent and focused. Numerous studies have shown that students taught correctly through technology are more engaged, learn faster and take more ownership of their education. Learning is able to evolve past note techniques to more collaborative and engaging classrooms. Students can step up from being passive audiences to active participants.

Yet to get classrooms there is not easy, says Govender: “Collaboration is key between all of the people involved. Too often, modernising education fails because technologyists simply drop new hardware at schools, brush over training, and expect the staff to figure it out. This never works, especially considering the growing number of technology offerings in the market. At Dell, we believe you only see results in relationships. In all the stakeholders coming together and determining what supports the educators and students, not what sounds like a good idea.”

This is a pillar of Dell’s Future Ready Education strategy: technology is the biggest enabler of human potential, but only if it is applied after understanding the problem and the options to deal with that problem. Dell develops partnerships with both the technology and education worlds, resulting in purpose-built products that are aimed at the core challenges in classrooms and beyond. This includes the responsibility of ensuring technology delivers. As Govender points out, a computer can’t help teachers if it’s unreliable.

“Good educational technology needs everyone to pull their weight. At Dell, that means the right technology for the right situation, as well as supporting those investments. If we are not empowering classrooms and if we are not giving support in terms of training or consistent delivery, we are not the trusted advisors that educators demand.”

South Africa’s government has committed to a vision of paperless, technology-driven schools – a vision that dovetails with the emerging technology culture students are growing into. For Dell, this is an opportunity both as a business and as a participant in building the future for generations to come.

From more information contact Ravi Govender on 011 709 7700 or e-mail: Ravi_Govender@dell.com
Education a key component in unlocking the Africa promise

Despite the International Money Fund predicting sub-Saharan Africa will post a 3% GDP growth rate this year, down from the 5 to 7% range previously recorded, the continent still possesses attractive opportunities for the global market. Many multinationals and local South African businesses are planning for and investing in providing goods and services to the 900 million new urban dwellers expected in Africa over the next 35 years Africa.

However, according to Leon Ayo, CEO of executive search firm Odgers Berndtson Sub-Saharan Africa, in order for leaders to create sustainable businesses and support new ventures, development of local talent and skills are critical.

“Businesses, whether locally or internationally based, will not only require a high quality talent pool but also need to understand the investment required into developing this talent pool,” says Ayo. “Education plays a critical role in delivering on talent development which calls on institutions of higher learning and government to also consider this implication.”

South African education entrepreneur Fred Swaniker commented during the World Economic Forum in 2012 that Africa would need to build 135 universities over the next 35 years Africa.

“While greater access to education can provide qualifications which we expect to result in employment, whether this is through MOOCs, blended learning models or even traditional bricks and mortar universities, this is far from reality,” says Ayo. “There are two main issues to consider. The perception of the quality of the education and the expectation of what that qualification will deliver.”

According to Ayo, the perception around a MOOC qualification is that they may not be as highly valued as a tertiary qualification from a 150 year old higher education institution. On the other hand, a traditional university degree or qualification may not also guarantee employment. Universities, business leaders and government need to re-assess the education archetype and determine whether its application is still relevant in the continuing development and growth of the continent overall.

It is vital therefore that higher learning institutions produce graduates that are ready for the workplace, and ready to solve some of the continents (including social and economic) problems. Education needs to go beyond simply churning out qualified people. The following points also require decisive input:

- Students learning and practicing critical thinking.
- Businesses needing to be honest about their needs, and they need to be in touch with higher learning institutions so that they can share this information.
- Business and government needs to have a better dialogue with institutions.
- Interventions such as internship programmes and skills courses must be implemented.
- Sub-Saharan Africa needs to realise that we are competing on a global stage.
- Universities and tertiary institutions need to pay attention to international rankings so that they can become globally competitive.

“Africa needs to improve the quality of education, and the outputs. Other challenges such as infrastructure, a lack of internet that is fast and affordable, and energy supply issues can be resolved with the right collaborations. Africa needs an effective higher education system, the right talent and leaders with a clear vision to make this happen. The talent exists on the continent, it just needs to be educated and refined,” concludes Ayo.

MOOCs (mass open online courses) are potentially one solution. In June this year Wits announced that it will be offering MOOCs, short online courses, and ultimately entirely online degree programmes. Wits has become the first university in Africa to offer MOOCs on edX, an online learning platform established by Harvard University and the Massachusetts Institute of Technology in 2012.

“Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is most important” – Bill Gates
Full marks for innovative South African social enterprise

Independent report lauds impact of scalable intervention in South African basic education

Partners for Possibility received powerful endorsement from the private, public and academic sectors, following the publication of an independent report on the effectiveness of the programme during its first five years.

Described as “overwhelmingly positive” and “uniquely powerful”, the programme was discussed during two Business in Education Summits held during June in Cape Town and Johannesburg. The summits brought together some of the most active commentators on education from the private sector, provincial government and civil society.

“Our Business in Education events is an ideal opportunity to discuss the challenges facing basic education and the powerful leverage effect that we can create by partnering the private sector with under-resourced schools,” says Dr Louise van Rhyn, CEO of Partners for Possibility.

The summits in Cape Town and Johannesburg were addressed by well-known business leaders, academics and participating school principals. These included:

- Povendran Pillay, Head: Segment and Client Value Management for Consumer Banking at Nedbank,
- Francois Adriaan, Head of Corporate Affairs at Sanlam,
- Godwin Khoza, CEO of the National Education Collaboration Trust,
- Paul Harris, co-founder of the FirstRand Group,
- Adam Craker, CEO of the IQ Business Group
- Panyaza Lesufi, member of the executive committee of the Gauteng Provincial Government

“Each partnership is contracted to last for at least 1 year, although the study has found that 68% of partnerships continue for much longer. During the first year together, business leaders and school principals receive formal training, one-on-one coaching, group support and guidance to first hone their leadership skills and secondly to identify and address the challenges facing their school.

“To understand the challenges facing under-resourced schools, one should consider the context within which each school finds itself. Principals are often ill-prepared for their role as general manager of a school, while the children and teachers face the harsh realities of poverty, lack of resources, drugs and gangsterism and a myriad of other ills that place a strain on their learning environment,” says Dr Andrew Hartnack, lead researcher into the effectiveness of the Partners for Possibility programme.

According to Dr Hartnack, over 20 000 schools in South Africa are considered under-resourced, with PEP active in over 400 of these schools. This has grown from only one school in 2010 to nearly 300 schools when he conducted his research.

“The Partners for Possibility programme is a home-grown innovation and a perfect example of frugal innovation, using the resources and people you have to make a significant change in the lives of children at under-resourced schools,” says Hartnack.

The research was conducted on behalf of the DG Murray Trust by Dr Hartnack of the Sustainable Livelihoods Foundation. He conducted more than 120 in-depth interviews and closely studied 20 schools that completed the programme, comprising schools in the Western Cape, Gauteng and KwaZulu-Natal.

“The results of this research is very encouraging,” says Dr Hartnack. “All participating school principals said that they found the programme extremely beneficial, as did the participating business leaders.”

According to Dr Hartnack, 100% of all principals questioned found the programme extremely beneficial for them as leaders and for their schools. All principals also saw significant value in having access to a partnering business leader.

“Because the programme does not apply a ready-made solution for all schools, but rather pairs and empowers these high-level partnerships to address each school’s unique challenges, the effect are both significant and long lasting,” says Dr Hartnack.
Educators be aware: Sugar-high learners in your class

Medical professionals and teachers are increasingly creating awareness around sugar as an addictive substance and are highlighting that it is a growing problem amongst children. Earlier this year during Drug Awareness Week, Riverside College carried out a class experiment that measured performance and concentration pre and post sugar intake.

The pre-primary, primary and high school, which is based on Burgundy estate in Cape Town, ran a series of tests to evaluate the impact of sugar on children. "Learners’ results were best before consuming any sugar. Their behaviour became unpredictable shortly after eating sweets and their concentration levels dipped," Lynne Arbuckle, primary school principal at Riverside College said.

Studies have shown that sugar does not directly produce hyperactivity, however, changes in blood sugar levels affect the release of adrenaline, which impacts behaviour and performance. "Parents hold a big responsibility for how and what their children eat. Introduce healthy snacks at home, limit take-away meals and foods when their bodies are accustomed to stocking up in case their next meal does not arrive on time.

• Boost up at breakfast: A wholesome, low-sugar breakfast is imperative for performance at school. Low GI and high protein breakfasts are great energy boosters that do not require sugar.

• Mix it up: Blend plain yoghurt into your kids’ favourite flavoured (and sweetened) ones, switch chocolate spread for peanut butter and experiment with flavoured plain treats yourself (with raw cocoa and cinnamon, for example).

How sugar impacts behaviour

Sugar causes a fluctuation of key hormones in the blood. Approximately four hours after eating, blood sugar levels drop and adrenaline kicks in, which drives the urge to eat again. Children are very susceptible to changes in behaviour linked to this hormone, including impulsivity and reduced concentration. Low GI meals have been shown to reduce the intensity of these changes in blood sugar levels, while sugary ones make them more pronounced.

One of the most common effects sugar can have on children is cold-like symptoms, according to Dr. Julie L. Wei, a pediatric otolaryngologist. Wei said many of her patients complain of chronic runny noses, excessive mucus, cough and symptoms of sinus infections.

Some children are even diagnosed with allergies, without having any formal testing. They’re prescribed medication but their symptoms may actually be due to too much sugar.
Creating second chances for children

Earlier this year 67 Grade 3 learners from Elnor Primary School in Elsie's River travelled in a sponsored Golden Arrow bus to the Zip Zap dome in Cape Town for a fun and educational outing where they learnt basic circus skills. At the end of the workshop they were given a short performance by the instructors where they could see what hard work and years of circus training can bring.

More than 1,000 youngsters from 27 primary schools and children's homes in underprivileged areas of Cape Town will participate in Zip Zap's Second Chance Project this year.

"The circus is an excellent intervention tool for youth-at-risk because it provides a safe and fun platform for children to learn important life skills like discipline and team work," says Brent van Rensburg, co-founder of Zip Zap. "This programme is about inspiring youngsters from the roughest parts of Cape Town, where gangsterism and drug abuse are the norm. The project enables them to consider totally different and wonderful ways in which they can develop skills that can lead to professional careers in the future," explains van Rensburg.

Zip Zap, a registered Non-Profit Organisation founded 24 years ago, has helped many of Cape Town's brightest young circus stars to obtain professional circus contracts on internationally acclaimed circus stages around the world.

Even before the children, aged eight and nine years old, arrived at the Zip Zap dome they were buzzing from the simple adventure of a bus trip. Vanity Witbooi, their Grade 3 English teacher explains, "Some of these learners have never been to town before and just showing them well-known landmarks on our way to Zip Zap was really exciting for them."

At Zip Zap the learners split into groups and tried their hand at various circus activities under the watchful eye of Zip Zap's instructors, many who come from similar backgrounds to the learners. The morning, full of activities, included: performing tricks on a trampoline, walking the wire on a tightrope, hanging upside down on a trapeze, juggling, and doing cartwheels and handstands with acrobats. Children smiled broadly and laughed with delight as they lined up to take their turn on each apparatus.

"I have never been to the circus and have only ever seen performers on TV," says Geneva Goliath, a Grade 3 learner. “These tricks aren’t as hard as they look, you just have to try, it is so much fun,” she explains.

For another learner, Vincent Chaima, his favourite activity was learning how to jump on the trampoline, flip and land safely on the big, soft mat. The young boy was impressed with the show put on by Zip Zap's performers at the end of the workshop which left all the learners wide eyed and amazed. "One day I want to be the one who does those balancing tricks on a bicycle," he says, adding that he laughed so much when the one juggling ball landed on someone’s head.

The Second Chance Project started in 2009 and last year, with support from the HCI Foundation, 733 children travelled to Zip Zap on Golden Arrow Buses for a total of 18 workshops. With support from generous donors, more children can be reached through the Second Chance Project and lives can be transformed.
Love him or not – but respect him

Professor Jonathan Jansen has officially stepped down as Vice Chancellor and Rector of the University of the Free State (UFS) at the end of August. He will take up an invitation as a Fellow at the Centre for Advanced Studies in the Behavioural Sciences at the US’s Stanford University in September 2016, Judge Ian van der Merwe, the chairperson of the UFS council said.

The council commended him for his drive to further the academic performance and transformation at the university: “To this end he was instrumental in the improvement of student success and graduation rates, the increase in research outputs’ the growth in staff diversity’ and the growth in third-stream income.”

Van der Merwe said Jansen’s departure was a great loss for the university. “He has led the university through difficult and complex times – from after the Reitz incident up until the recent student protest actions. He brought stability and respect for the university – nationally as well as internationally.”

Prof Jansen has also been known for some controversial and critical statements regarding South African education and ANC politicians. One Sunday Times column comes to mind in which he wrote, “South Africa’s disregard for competence is illustrated by the way government policies have dumbed down the school system since the 1990s”.

In a now infamous Facebook post titled: Ten things I would do first if I were your Minister of Schools, Jansen suggested ways to improve the South African education system:

• Stop the circus: no more announcements of matric results. I would instead announce the results of our investment in pre-school education programmes – how well prepared are our pre-schoolers for formal education?

• Fire all the deployed officials in provinces and districts. Officials welcome to reapply on the basis of proven competence – party loyalties will be irrelevant.

• Replace fired officials with coaches and mentors (not inspectors) for every teacher and principal who work alongside staff as colleagues. These coaches and mentors must have a track record of running successful schools or achieving high results in the subjects for which they are responsible.

• Appoint an ombudsman for every SGB to root out corruption in teacher and head appointments.

• Ensure every child has a textbook in every subject within three months, or somebody loses his job.

• Abolish the ANAs with immediate effect and assess every three years in the most vulnerable schools only.

• Increase the salaries of teachers on one criterion only – that the children in the poorest schools show steady increases in achievement scores.

The post received 1 180 shares, and a number of comments urging Prof Jansen to run for Minister of Education. Some commented that the points Jansen made are idealistic, but they certainly do provide food for thought for educational leaders.

Jansen’s move comes a few months after UFS student protesters called for him to step down. He was appointed UFS rector and vice chancellor in July 2009.
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