**ICP conference Cape Town: Some key messages from George Palavestra**

**System leaderships themes shared throughout the conference**

**Director General: Key points**

* Equity and Inclusion are the key drivers for the African education goals. focus on no child left behind
* 3 streams of Education
* 85% in government system-fee paying schools
* Entry qualifications for Principals being implemented
* School autonomy a focus
* Largest progress in TIMMS than any other jurisdiction around the world
* Critical thinking, problem solving, creativity, collaboration and digital literary
* Need to equip students for disruption. ICT is a vehicle that, need to prepare students to be smarter than their smartphones.
* Build a growth growth mind set (able to self-reflect and seek opportunities for self-improvement) vs fixed mindset (concerned for being judged and consequently avoid doing things differently)

**Ministers address: Key points**

* A despondent teacher cannot inspire a student.
* Focus on the 4Cs critical thinking, creativity, collaboration, communication

**Radial leadership: University of J/Burg vice chancellor : Key points**

* Inequality on the rise worldwide - comparable to 1913. Polarising haves and have nots.
* Social marginalisation leading political polarisation and conflict. South Africa is only the front guard as this will be replicated across the world
* Educational institutions are the saviour of human being who are part of the universal community.
* Universities will need to make “fees fall” which will bring back not only middle classes but lower classes.
* Aiming to set up some financial scheme to support higher education. Key to work with the banks to raise the revenue.

Lessons to be learnt for a leader

* Social justice is the number 1 priority for education,
* Be pragmatic; Make changes form the world that exit not the world that we would like.
* Difficult decision need to made, don’t take the job if you don’t want to make the difference. Fulfil the mandate
* Be transparent about the rationale and communicate these to the broader public.
* Don’t look solely at the past but look to the future for potential jobs as jobs no longer last a life time. Need to train people to lean rans relearn the modalities of their own jobs.

**Key note: Dr Beau Lotto “The science of seeing differently”**

* Basis of all learning is seeing differently. **Aim of his presentation was for the audience to know less than what we knew at the start.**
* Context is everything and is based on what surrounds us rather than what is.
* Information is meaningless and is nothing with our context; this is based on interacting with the world.
* Meaning was useful in the past. Brain learns to see the meaning rather than the reality.
* Perception underpins everything
* Everything you do is a reflex and determined by our bias – essential for survival and as a result limits our thinking, actions and behaviours. i.e. staying alive becomes the first perception.
* Our meanings are projected into our world.
* Creativity is only creative from the outside, change possibilities with different assumptions. Delusion is the basis of creativity and helps us to reconstruct meaning.
* Power of diversity, possibilities can be revealed by others, not you.
* We hate to not know. We evolved to make what was uncertain go make it certain.

Play is an evolution of uncertain, a way of being, open to possibility, cooperative, intrinsically motivate intention. Science is a critical part of creativity. A good science program focuses on good questions and gets us to wonder and to ask

* Why
* What if
* Wow
* Who cares

Adaptability has two sides; efficiency vs creativity. Testing and competitions are about efficiency
Teacher teach creativity out of kids.

Play is creative with intention.

**Keynote: Dr Judy Willis: ” How emotions impacts the brains successful learning”**

[Www.RADteach.com](http://Www.RADteach.com)

Prefrontal cortex memory and reflective brain

* Stress impacts the amygdala (emotional switching station of our brain).
* Flight =acting out in class, brain under stress bought out by boredom, low personal relevance, mastery which leads to frustration.
* Brain uses 20% of all the bodies resources oxygen, glucose hence effort drops if the goal is not relevant or not achievable.

Goal is to stop the brain from going into amygdala blockage. Need to focus learning on;

* Positive climate with strong relationship
* Self-management – top down emotional control, build emotional awareness, mindful breathing
* Provide achievable challenge

Pleasure reward system. The brain is addicted to dopamine. Intrinsic satisfaction increases attention, motivation perseverance and memory. Dopamine creators are;

1. **Dopamine blasters** are music, being read to, movement, choice, humour, optimism,
2. **Higher dopamine generators**; making predictions, achieving challenges, buy in, prediction, curiosity and group consensus. Being able to feel safe in the discussion without personally identifying an individuals weakness in public. Need to ensure an achievable challenge, where inclusion, discussion equity and variable participation options exist.
3. **Lower the barriers not the bar to learning** - Goldilocks level. (flexible inclusive opportunities for knowledge level). Need achievable goals outlined through the subject rather than giving a focus that is too over whelming. Break things down to recognisable parts.
4. **Choice** raises dopamine.
5. **Buy in** strategies before we start the class –i.e student photos from previous years, video goals, debates, trips celebrations. Important for kids to recognise other kids.

**Keynote: Dr Judy Willis “Constructing durable transferable memory”**

Making connections between the new and the known. This is based on patterns that you have already established. Brain circuits that have already made from past experiences and based on frequency.

Brains stores these patterns in clusters. Brain usage: 5% used to focuses on things that it has been told to focus on

Prior knowledge activators – good for short term memory

* Previous exposures
* Personal connections
* Bulletin boards, videos or images
* Analogies and mnemonics make memory links
* Graphic organisers are the most powerful activators based on patterns
* Analogies

Moving to the long term memory we need

* Neuroplasticity – each time you use it becomes stronger – more circuit firing you get more wiring.
* Mental manipulation by symbolise (personalise, categorise, summarise will help to move short term to long term.
* Categorise relationships ( similarities and summarise into less than 140 words ie Twitter message
* Personally relevant for task transfer.

**Key note : Dr Becky Baily “Self-regulation and the brain”**

* Need energisers to start the lesson - physical activity stimulates and energises the brain. Our usual classroom practice is to suppress or stop students from energising the learning at the start of the lesson.
* Change the state first then the behaviour second
* Calmness occurs when things are going your way, distress occurs when the world is not going the same way.
* Inner state is when you try and control others
* Take back the power by focusing on “how you made him/her feel”. This gives power to others to take control .
* Ie “Don’t make me pull this car over” to follow up dissension but move to “I’m going to pull the car over until all seat belts are on and everyone is safe”.
* Mature inner speech is used to self-regulate but this occurs between 4 and 9 years of age.
* Teacher’s role is to be co regulators – adult first

Three stages of Self-regulation

1. **Survival state**: fight or flight
2. **Emotional state**- coexistent with past experiences and influenced by our upbringing where brain is governed by the heart.
3. **Executive state** – calm cool and connected

Social + mental + physical = wellbeing

**Workshop: Ari Pokka: break on through to the other the side**.

Our students are living in a very different time.

* Expectations of our kids are not based on the same premise as the older generations; a better life, better job than our parents.
* Greater welfare mentality
* Introspective
* Communication moving away form speaking – online, virtual realities
* Artificial intelligence and robots
* Sensitive infrastructure to enable connectivity in any place any time any mode
* Genre free thinking – allows for random ways of doing rather than conventional experts.
* Will language teaching focus change with the advent of on line translating software like the one Microsoft demo yesterday. Huge number of hours learning language may be redeployed for other priorities.

Take it as it comes – no one can escape this generational change.

* Personalised learning is the focus of the future.
* Diversity of values, need to be a leader of values
* Environmental change – why are students actually coming to the site, what is the purpose of the school building
* End of traditional cultural expectations, multi lingual, multi value school is the way of the future

Leaders will need to have

* Values and empathy
* Education is personal – out of classroom
* Social interactions
* Flexibility to change working modes
* Constant changing of school structures
* Out of the box, school follows learner’s
* Creativity

**Keynote: Dr Nick Spoull “Need for 21st Century Skills**

* Top 10 jobs in 2017 didn’t exist in 2000
* Data being generated in 2017 is more than all known data since humanity started, exponential growth.
* Artificial Intelligence (AI) bots are now developing their own language and working out elements of emotions based on what is observed and analysing expected and observed reactions. Facebook have already established that the bots are able to lie.
* Face recognition applications are now being used for purchasing food not just identity. China have every person born in the country on file. USA about 50%
* Toffler quote re learning “relearn for 21st century”
* Achieving goals, working with others, managing emotions are skills that will become more important than cognitive skills as AI start to take over the cognitive elements.
* Silent characteristics are being selected by parents as the differentiator when selecting a school ie non-government school.
* William Gibson quote “ the future is already here but unevenly distributed”

Presentation available on www.nicspoull.com

**Wellbeing workshop: Dr Michael Mol “It’s your move”**

* 62% of Africans are obese. This compares with 42% across the world
* Genes have little bearing on long life 20% vs 75% to life style.
* Just because you’re not sick doesn’t mean that you’re healthy
* Opposite of unhappy is not happy it is not unhappy.

Focus on preventative rather than reactive health care. How to be proactive in healthcare

1. Sleep 7 hours is a minimum requirement
2. Eat well – eat more real food
3. Move – exercise is the most important – 2.5 hours of moderate intensity every week, sing tests if you can’t then this is vigorous. ***The best exercise in the world is the one that you will do***. Find something that you will do.2 days of strength training required every week.
* Heart beats per minute reflects the length of time that your heart can sustain our longevity. Ie humming bird (3 years) and the turtle (100 years) have the same number of beats in their lifetime’.
* Touching toes test. Arteries stiffer with age and weight. Need to aim to prevent arterial stiffness. Exercise delays arterial stiffness. Highest incidence of high blood pressure in the world in South Africa.
* Exercise reverses high blood pressure. Blood pressure drops for 13 hours after any exercise. Exercise takes sugar out of the blood reducing the risk of diabetes.
* Anxiety and depression reduces life expectancy another silent killer.
* String to measure weight. Measure fat around your gut which impacts on your internal organs.
* Wind string around wait then measure the number of lengths of a credit card. For female 9.5 is average male is 11 lengths. No need for a scale – need to focus on the belly.
* Sitting is the new smoking for our profession
* Every hour of sitting reduces our life expectancy by 22 minutes. Every 15 minutes need to et up from your desk undo the *negative* effects of sitting.

**Keynote: Dr David Molapo “leading effectively in difficult times”**

* Life is like a coin, can only be used once.
* Leaders are not created but leaders are exposed in a crisis.

Price of leadership

* Stress
* Leadership is about bringing other leaders on but in particular you need to make them better than you were
* Legacy is not made by people but for people.
* Humility protects you from humiliation
* Rejection is part of leadership
* Perception are not real or false but colour our justification

Leading in difficult time

1. Stay alert to market conditions, things will continue to change , romantic to reality to
2. Control your fears – will paralyse you as an individual. fear forms problems
3. Be tough but be human , tender, stop trying to livre our dreams through our children.
4. Strive to do what is right not what is easy.
5. Be a risk taker not an undertaker or care taker
6. Increase your passion and simplify processes in difficult time.
7. Lead by walking around
8. Past of reference not of residence, lesson learnt but don’t dwell in the past
9. Strive for continuous improvement embed in a process.
10. Review your own personal strategy
11. Over communicate (HOT conversation) don’t sell but tell.
12. Stay focused on performance.
13. Encourage innovation. Limit thinking is to limit change
14. Establish trust – must be earned.
15. Be the generator of hope

Change journey

Awareness, questioning and understanding, knowledge, accepting and adapting, commitment and ownership