Commissioner for Children and Young People
Western Australia

2012 THINKER IN RESIDENCE

Dr Stuart Shanker

Report of the 2012 Thinker in Residence

Self-regulation

Prepared by Dr Stuart Shanker
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For the Commissioner for Children and Young People WA

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Commissioner's foreword

I was pleased to welcome Canadian early childhood development expert Dr Stuart Shanker to Perth in June as the 2012 Thinker in Residence.

During his two week residency, Dr Shanker presented to more than 2,000 people at 35 seminars, workshops, forums, lectures and meetings. I was also pleased that Dr Shanker was able to travel to Roebourne with me as part of this residency.

The second Thinker in Residence program has been very successful, generating much debate about the critical link between self-regulation and a child's wellbeing.

I attribute much of this success to the topic of this year's residency which resonated with parents, teachers and a wide range of other professionals who work with and support children and young people.

This report is the culmination of months of work by Dr Shanker, the staff of my office and the nine partner agencies of the 2012 residency – Rio Tinto; the WA Council of Social Service; the departments of Health, Education and Communities; the Mental Health Commission; Child Australia; Edith Cowan University; and the Telethon Institute for Child Health Research. Partnerships and collaborative ways of working are critical to improving children and young people's wellbeing and the success of this residency demonstrates the effectiveness of this ethos.

As this report outlines, from early on in his residency, Dr Shanker was impressed by the quality of the programs and commitment of professionals working to improve the lives of children here in WA.

Through the dedication and vision of individuals and community organisations, Dr Shanker believes Western Australia has a strong foundation from which to build a universal, comprehensive program to support the self-regulation of children, commencing in their most formative years.

Improved collaboration, coordination and information sharing are the most important components of the effort to bring about change and reach this goal. We need to make serious efforts to reduce silos and provide broad, seamless services to children and parents across our State.

Commissioner for Children and Young People Michelle Scott and Dr Stuart Shanker

Internationally, we can share research and theories to accelerate the process of innovation as we respond to the 'new' framework of self-regulation.

Children in the 21st century face 21st century challenges. To sustain a nurturing and stimulating environment and promote the healthy development of our children, we must make maximum use of the latest research and evidence and be prepared to act.

I urge all involved and inspired by Dr Shanker's visit to respond to this report and work towards practical changes in the way that we approach children's development and wellbeing.

Michelle Scott

MICHELLE SCOTT
Commissioner for Children and Young People, WA

Executive summary

1. Introduction

In accepting the Commissioner for Children and Young People's invitation to be her second Thinker in Residence, my focus for the two weeks was to learn as much as possible about how the children and young people in Western Australia were doing, and to share with local professionals and practitioners some of the advances we are currently seeing in Canada in relation to the residency theme *self-regulation*.

While I expected to be impressed by what I saw in WA, I was still surprised by the scope and the depth of the efforts being made to provide the children and young people of WA with the best possible foundation for lifelong health and wellbeing.

I was also deeply struck by the similarities of the problems our children and young people are experiencing. Research in Canada and WA shows that around 40 per cent of students are unproductive, displaying behaviour that is aggressive, non-compliant, disruptive, inattentive, erratic, impulsive, unmotivated, unresponsive and unprepared, along with irregular school attendance. The number of children experiencing these problems is growing and the behaviours are tending to be more severe and presenting at a younger age. As a result, teachers are utilising more of their resources on managing behaviour.

It also appears that similar lifestyle concerns are affecting our children, including far too many hours spent watching TV and playing video games, a worrying drop in physical activity levels, a very worrying drop in daily sleep and disturbing trends in diet.

450 people attended Dr Shanker's information session for parents

2012 Thinker in Residence Dr Stuart Shanker

One of the things the Commissioner most wanted me to reflect on was what I saw as the single biggest difference between the 'child development climate' in WA versus Canada. One impression was the patchy and non-systemic nature of the efforts underway in WA, as opposed to the present situation in Canada. Canada has made progress in overcoming the bureaucratic silos and towards a 'post-Behaviourist' approach to enhancing the wellbeing of children and young people.

2. The problem with Behaviourism

Beginning in the late 1990s, researchers in Canada began to worry that there were a number of problems with the Behaviourist paradigm that had dominated educational and health thinking for several decades. The most prominent issue was that certain behaviours (for example, aggression) appear early and are strong predictors of downstream problems, yet these behaviours are highly resistant to intervention.

Additionally, schools and other services are facing an inexorable increase in the number of children needing attention with a dramatic increase in the severity of problematic behaviours. Also, many new health problems are emerging in children.

This created a desire to understand the *causes* of the behaviours, and *why* they should be tied to a specific life outcome.

3. Self-control

Self-control, in traditional Behaviourist thinking, was thought to develop in much the same way that a muscle develops. That is, a child must be 'trained' over time to strengthen his resistance to impulses.

Research now tells us that there are more basic physiological and emotional processes which influence children's ability to resist a temptation, which also influence their mental, physical and educational development.

If we don't address these underlying factors, efforts to work solely at the level of the child's behaviour may at best be ineffective and at worse exacerbate the child's problems exercising self-control. The more we understand the core processes involved the better we will be able to tailor our interactions with children so as to enhance their self-regulation.

4. Self-regulation

Self-regulation refers to a child's ability to deal with stressors effectively and efficiently and then return to a baseline of being calmly focused and alert. The more smoothly a child can make the transitions from being hypo-aroused (necessary for recovery) to hyper-aroused (necessary to meet a challenge) and return to being calmly focused and alert, the better is said to be his or her 'optimal regulation'.

The more stressors a child is dealing with, the harder it becomes to remain calmly focused and alert. A child's negative behaviour is not some sort of 'innate' character flaw, but a chronic state of being over-aroused that is draining his capacity to deal with new stressors.

Think of this in terms of putting your foot on the accelerator or the brakes to deal with changing driving conditions. If we aim to maintain a constant speed, say 100km/h, then we will need to adjust the pressure that we apply to the accelerator to allow for changes to the road, incline and wind.

Minister for Child Protection; Community Services; Seniors and Volunteering; Women's Interests; Youth, Hon. Robyn McSweeney

Some children, for all sorts of reasons – biological, environment and social – may be pushing too hard on their 'accelerator', or jump between gears too quickly, or are slow to accelerate. Just like driver training, children need to master the ability to find their optimum speed or level of arousal. The problem appears to be that if the brakes are used too much, they begin to lose some of their resilience; and research is telling us that this is already apparent in children as young as the age of four.

5. The primary sources of stress affecting children and young people

There are five major sources of stress in a child's life and thus we need to think of self-regulation in terms of these five domains:

1) Physiological – the activity or the level of energy in the human nervous system. For example, some children may be hypersensitive to noise.
2) Emotional – positive emotions (for example, interest, curiosity, happiness) produce energy, while negative emotions consume great amounts of energy.
3) Cognitive – mental processes such as memory, attention, the acquisition and retention of information, and problem solving.
4) Social – understanding social cues and behaving in a socially appropriate manner.
5) Prosocial – voluntary behaviour intended to benefit another, such as helping, sharing, donating, cooperating.

6. Applying the self-regulation lens to the work being done in WA

In virtually every one of the services that I visited during my residency, I saw professionals who were well advanced in their efforts to enhance children's self-regulation at one or more of the above domains. While there were many examples, the following are worthy of recognition:

Roseworth Primary School – Over many years, principal Geoff Metcalf and staff have developed a comprehensive, school-wide approach to enhancing self-regulation. Their partnership with Edith Cowan University and the Fogarty Foundation is contributing to research and the knowledge-base of self-regulation processes and programs.

Child and Parent Centres – This State government initiative involves the development of 10 centres on school sites that will deliver integrated programs and services, developed to meet the needs of local families. Our research shows that there is a unique opportunity to enhance the self-regulation of children – all children – between the ages of two to five years, and it is therefore incredibly important that this program extends from targeted to universal and state-wide as soon as possible.

Community child health nurses – Another important announcement by the State government was for 100 additional community child health nurses. Ontario's investment in child health nurses has proven to be one of the most effective investments to improve child and community health. It is very important that all community child health nurses are trained in self-regulation.

headspace – headspace focuses on early intervention and evidence-based treatment and care for young people. Their youth-friendly, multi-agency approach supports self-regulation.

Aboriginal children – My visit to Roebourne was inspiring. While I cannot begin to understand the complex situation in such a short timeframe, I was struck by two points:

1) Aboriginal children are experiencing extraordinarily high levels of stress, for multiple reasons.
2) The effects of this heightened stress load are showing up at a remarkably young age.

7. The way forward

There are, I believe, four key areas that will be critical to enhancing the self-regulation and wellbeing of children and young people in WA:

1) A genuine paradigm shift, in which children's behaviours are naturally and instinctively reframed in terms of their self-regulation.
2) A greater financial commitment to the important initiatives now underway in health, mental health, family services, and education, with a clear recognition of the significant immediate as well as downstream cost-benefits of programs that enhance children's self-regulation.[1]
3) A greater social commitment to address those lifestyle factors that might be negatively impinging on children's self-regulation.
4) A more effective network of all the compatible services active in the area, all of them working together under the umbrella of self-regulation, each from their unique vantage point. This can be achieved by increased coordination and collaboration, locally and internationally; recognition of self-regulation as a framework, working with the medical community and a bilateral information exchange agreement.

8. Conclusion

WA children are not immune from the stressors that all children in the 21st century are struggling with. It comes as no surprise then that we see the same sorts of worrying trends in children and young people in Western Australia that we see in all other industrial nations.

Perhaps the critical reason I come away from my experience as Thinker in Residence with a strong sense of optimism about the future, is that I observed that WA is vigorously responding to these problems rather than denying them.

With such a strong desire for success, and the awareness that the future of Western Australia hinges on the healthy development of *all* of its children, I have the utmost confidence that these efforts will be successful.

Dr Shanker and Michelle Scott with students of Roseworth Primary School

1. Browne G, Byrne C, Roberts J, Gafni A & Whittaker S 2001, When the bough breaks: provider initiated comprehensive care is more effective and less expensive for sole-support parents on social assistance. Social Science & Medicine 53, 1697-1710.

1. Introduction

John Abbott begins his recent book, *Overschooled but Undereducated* (2009) with a reference to the traditional African greeting used when people of different tribes come together: *"Umbutu",* meaning, *"How goes it with the children?"* This salutation was very much on my mind when I took up my duties as the second Thinker in Residence for Michelle Scott, Western Australia's Commissioner for Children and Young People. I had come not so much to enjoy a quiet period of restful contemplation as to spend two weeks learning as much as possible about how the children and young people in Western Australia were doing, and to share with local professionals and practitioners some of the advances we are currently seeing in Canada.

I had come expecting to be impressed by what I saw. After all, Australia's Early Learning Framework, *Belonging, Being and Becoming* (2009), has had a very strong influence on Canadian educational thinking; and researchers from the two countries are actively involved in a number of collaborative efforts (for example, the areas of health, exercise, psychology and mental health). But even though I anticipated that I would observe a number of important initiatives, I was still surprised by the scope and the depth of the efforts being made to provide the children and young people of WA with the best possible foundation for lifelong health and wellbeing.

I was also deeply struck by the similarities between Canada and WA. The synergies go much deeper than shared history or a common pioneering spirit. What is perhaps most striking is the similarity of the problems children and young people are experiencing in our two countries.

In their 2009 review *Trajectories of Classroom Behaviour and Academic Progress*, Max Angus and colleagues from Edith Cowan University reported that 40 per cent of all students in the study's sample are unproductive. This is virtually identical to the number that Fraser Mustard, Margaret McCain and I reported in *Early Years Study II* (2007). Furthermore, they report the same number of children and young people with mental health problems (21 per cent according to the Zubrik et al. 1997 study) that has been documented in Ontario (Children's Mental Health Ontario 2005).

300 people attended the South Metropolitan Forum

The *Trajectories* breakdown of the major problems observed is much the same as ours (aggressive, non-compliant, disruptive, inattentive, erratic, impulsive, unmotivated, unresponsive, unprepared, irregular school attendance), as is their conclusion that the largest number of problems is due to inattentiveness (see also Pingault et al. 2011).

Trajectories also reported a number of the same disturbing trends that we see in Canada.

First, that the numbers of children who are difficult to manage and teach has grown dramatically over the past decade, as has the severity of the symptoms children are presenting; that gender differences that have long been stable are beginning to disappear; and that certain problems that were generally associated with teenagers (for example, defiant behaviour) are beginning to appear in much younger children.

They report the same increase in stress being reported by teachers that we have seen, and that far greater resources are now being spent on behavioural management in the classroom. Finally, they report the same lifestyle concerns that we have in Canada affecting our children, including far too many hours spent watching TV and playing video games, a worrying drop in physical activity levels, a very worrying drop in daily sleep and disturbing trends in diet.

The one thing they are clear about is that, despite our strong belief in the concept, it is becoming increasingly difficult to realise the principle of 'no child left behind', and attempting to deal with this problem using formalised testing is doing little if anything to redress the problem.

What struck me most forcefully, however, was not so much the similarity in the problems affecting so many of our children and young people today as the similarity in our response to this crisis. Unlike many of the countries I have visited, which are still at the very early phase of trying to build a consensus about the importance of investing in children and young people, Western Australia, like Canada, has already taken steps to address this issue. The leaders I met, the reception I received at public events and the enthusiasm of all the field workers I spent time with, attested to the fact that WA is firmly determined to meet this challenge head-on.

Indeed, it was for precisely this reason that the Commissioner invited me to be her second Thinker in Residence. One of the things that she most wanted me to reflect on was what I saw as the single biggest difference between the 'child development climate' in WA versus Canada. Perhaps my strongest impression was the patchy and non-systemic nature of the efforts underway in WA, as opposed to the present situation in Canada. In many ways I found this reminiscent of the situation that existed in Ontario a decade ago. Over this period we have made significant progress overcoming the bureaucratic silos that had so naturally developed (see Pascal 2009). But these political changes were driven by a profound conceptual shift, the result of moving down the road of a 'post-Behaviourist' approach to enhancing the wellbeing of children and young people.

Minister for Mental Health and Disability Services, Hon. Helen Morton

2. The problems with Behaviourism

To say that one is moving into a 'post-Behaviourist' phase is not to say that Behaviourism was somehow misguided; how could a scientific analysis of behaviour ever be 'wrong'? Maybe one wasn't rigorous enough in a particular study, or should have looked more carefully at intervening variables. But correlations are correlations, and when they are strong they are important.

Yet beginning in the late 1990s, researchers in Canada began to worry that there were a number of problems with the Behaviourist paradigm that had so dominated educational and health thinking for several decades. For one thing, it was turning out that what were assumed would be fairly straightforward correlations between behaviours and outcomes were far more complex than had been expected. Certain kinds of behaviours are less persistent than had been assumed; and the relationship between specific kinds of behaviours and educational outcomes or mental and physical wellbeing turns out to be highly variable and influenced by countless other factors.

Dr Shanker speaks with audience members after a forum

Another factor was that the Behaviourist outlook seemed to lend itself naturally to the development of silos; to the establishment of autonomous organisations dedicated to working on some specific behavioural domain. Entirely separate organisations had been created to try to deal with the problem of aggression, or impulsivity, or hyperactivity, or chronic withdrawal, and it turned out to be extremely difficult to get them to work together in a serious interdisciplinary fashion.

But what really led to the 'post-Behaviourist' shift occurring in Canada wasn't so much the complexity of doing rigorous behavioural analysis, as the fact that our efforts to change particular behaviours were turning out to be almost hit-or-miss. It seemed clear that certain behaviours (for example, aggression) appear early and are strong predictors of downstream problems, yet these behaviours are highly resistant to intervention.

While in the case of those behaviours that do seem amenable to change (such as compliance), the improvements observed seem to have more to do with the bond formed between adult and child than the actual intervention method employed.

Moreover, managing a child's behaviour – especially when one is dealing with a group of children – turns out to be incredibly draining. It seemed so straightforward when the founders of Behaviourism described how by just sticking to a conditioning paradigm one could manage any behaviour but, in practice, genuine change turns out to be remarkably difficult to achieve or sustain, and in some cases (for example, aggression) the intervention actually seems to make the behaviour worse for a significant number of children (O'Keefe 2005).

Even more worrying is that the challenge of raising healthy children seems to have been growing at an exponential rate over the past decade. The fact is that a system that was already straining at the seams is faced with a dramatic increase in the severity of problematic behaviours and an inexorable increase in the number of children needing attention (Centers for Disease Control and Prevention 2010). For that matter, there has been a very worrying surge in the number of new health problems emerging in young children (for example, Type 2 Diabetes and cardiovascular and kidney problems).

The point of 'Umbutu' is to see children as the 'canaries in the coalmine' – the most potent warning that we have of dangerous trends afflicting a society (for an incredible anthropological example of this metaphor, see Turnbull 1987). And this was where the problem with the Behaviourist paradigm was most glaring; for the problem with operating at the level of 'behaviour' is that it is difficult to explain why we see a behaviour or certain 'clusters' of behaviours/outcomes.

In 2006 Fraser Mustard identified the striking convergence over the lifespan between problems in mental and/or physical health (usually both, but at different times) and educational outcomes. But why should this be the case? Why should aggression or inattentiveness be such a strong predictor of mental and physical health problems as well as poor literacy and numeracy? These were questions that Behaviourism was poorly equipped to answer.

The key to the 'post-Behaviourist' shift that has been growing steadily in Canada over the past decade, therefore, was a desire to:

- identify the underlying causes that might account for whatever correlations are discovered between behaviours and outcomes
- understand the *causes* of the behaviours, and *why* they should be tied to a specific outcome
- test the effectiveness of an intervention protocol designed to address these underlying causes (Direct Instruction Response - DIR®)
- explore the links between the mental health, physical health, and education domains, in terms of these underlying causes.

The Milton and Ethel Harris Research Initiative (MEHRI) was established at York University in 2005 to pursue these four issues. On the basis of our recent findings (Casenhiser, Shanker & Stieben 2011) we are now about to institute the second phase of a 'self-regulation school initiative', designed to build on the first phase of a $1.5 billion program introduced in the province of Ontario in 2009 to roll-out a Full-day Kindergarten (FDK) Program for all children 3.8 to 6 years. FDK was explicitly designed to enhance children's self-regulation (for the reasons spelled out below), rather than to introduce children to formal education at these young ages ('schoolification').[2] In our next phase we will carefully study the effects of 'self-regulating' classrooms and practices on children's educational outcomes and their long-term mental and physical wellbeing.[3]

Dr Shanker at Roseworth Primary School

2. See Every child, every opportunity <www.ontario.ca/fr/initiatives/early_learning/ONT06_023399.html>
3. see Self-regulation <www.self-regulation.ca>

3. Self-control

A turning-point in the science of early child development occurred in 1968 when Walter Mischel performed the first of his 'delay of gratification' tasks: the so-called 'Marshmallow Test' (Mischel, Ebbesen & Zeiss 1972). It is often overlooked that what the founders of Behaviourism (for example BF Skinner, John B Watson and Jacques Loeb) were actually trying to do was get rid of the ancient Greek concepts of self-control or willpower, which they regarded as spurious, metaphysical constructs (Shanker 1998). In their place they wanted to create a science of shaping behaviour. Their idea was that, with rigorous behavioural analysis, they would be able to do things like extinguish violent behaviour or enhance creativity; not because the child *chose* to become a doctor or a lawyer, but because science had turned him into one. The reality, as mentioned above, has turned out to be rather different.

Scientists often talk about how Chomsky's devastating review (Chomsky 1959) of Skinner's *Verbal Behavior* (Skinner 1957) killed Behaviourism in 1959. But Behaviourism was never really killed – it simply moved to different areas, most notably, the treatment of autism (Applied Behaviour Analysis), educational practice (applied to teachers as well as students), and parenting theory (the provision of 'quick techniques' for extinguishing troublesome behaviours). But in the process it got turned on its head as a result of Mischel's delay of gratification tasks. Instead of being seen as a science that would bypass self-control and willpower, it became the chosen method for *instilling* self-control and willpower.

The thinking here is that self-control begins to emerge in children around the age of four. From something as simple as whether a child can resist a temptation for five to 15 minutes, we can make a number of surprising predictions about his long-term educational outcomes and mental and physical health (see Moffitt et al. 2011; Mischel, Shoda & Rodriguez 1989).

It was tempting to see self-control as the *underlying behaviour* that shapes a child's emotional development (Kochanska & Knaack 2003); educational outcomes (Mischel, Shoda & Peake 1988); social development (Vohs & Heatherton 2000); prosocial development (Guthrie et al 1997); and moral development (Kochanska, Murray & Coy 1997). And if that is the case, then here is the fundamental behaviour that we should be working on (using punishment and reward).

Temperament was seen as the big obstacle. Some kids, it was thought, are born with a heightened tendency to respond angrily, or to be frustrated, or to withdraw, or to crave novelty. The kneejerk reaction to the failure of behavioural management methods to have their desired effect with such children is to argue that they haven't been applied forcefully enough; that the child isn't trying hard enough, and we have to force him to make a greater effort, to exercise better self-control. In short, the Behaviourist assumption remained that by redoubling our efforts it should be possible to train every child to exercise self-control (Mischel & Ayduk 2004).

Our mandate at MEHRI was to apply the same 'post-Behaviourist' approach here as in the case of the 'downstream' behaviours. That is, to explore the underlying causes of a child's response to a 'delay of gratification' task and hopefully thereby explain the links between the child's educational, mental and physical development. But our big challenge was to overcome a remarkably ancient theme in Western thinking about the mind, that self-control is some sort of internal strength (Shanker & Casenhiser in press).

Self-control, on this line of thinking, is thought to develop in much the same way that any muscle develops. For example, one raises a warrior by giving a young boy a sword and instructing him to hold it out at arm's length. If repeated over and over then by the time he is a young man, he will be able to hold the sword at arm's length with ease. So too a child must be trained to resist his impulses. And here is the critical point in the Behaviourist mindset, some children will require much more training than others, perhaps because their 'muscle' is just naturally weak or because their impulses are unnaturally strong.

Our research at MEHRI tells us, however, that something else is going on. Much more basic physiological and emotional processes account for a four year-old's ability to resist a temptation and his downstream mental, physical and educational development. If we don't address these underlying factors, efforts to work solely at the level of the child's behaviour may at best be ineffective and at worse exacerbate the child's problems exercising self-control (rather like treating a fever without addressing the underlying pathology). But what is most important about this 'developmental pathways' orientation is the premise that the better we understand the core processes involved the better we will be able to tailor our interactions with a child so as to enhance his self-regulation.

4. Self-regulation

In *The First Idea* we identified self-regulation as the first, and in many ways pivotal, capacity in a child's functional/emotional development (Greenspan & Shanker 2004). In essence, 'self-regulation' refers to a child's ability to deal with stressors effectively and efficiently and then return to a baseline of being calmly focused and alert. The more smoothly a child can make the transitions involved from being hypo-aroused (necessary for recovery) to hyper-aroused (necessary to meet a challenge) and return to being calmly focused and alert, the better is said to be his or her 'optimal regulation' (Lillas & Turnbull 2009).

This use of 'self-regulation' is problematic for a number of reasons. First is the fact that 'self-regulation' has just so many different uses; but they are all inter-connected, and a comprehensive model of self-regulation must be able to account for the complex co-actional links between all of these uses (Shanker 2012). Second is the tendency to apply a construct that really applies to adolescents (that is, meta-cognitive, reflective thinking skills) to younger children. Third is the fact that self-regulation is not a static phenomenon; it is constantly developing as the child engages with greater and greater stressors. And fourth, and perhaps most serious of all, is the tendency to confuse self-regulation with self-control.

When one observes the four year-olds who can delay gratification, one sees them distracting themselves, convincing themselves that they don't really want the treat, even doing things like humming and singing or drumming their fingers on the table to soothe themselves. But the more aroused a child is when left alone in the room, the harder it is for him to exercise these skills and, indeed, the more pronounced become his 'impulses'. Little wonder, then, that he is much more likely to snatch the treat.

In essence, the more stressors a child is dealing with, the harder it becomes to remain calmly focused and alert. What the Marshmallow Test is telling us is that children are already beginning to differentiate at the age of four in their ability to exercise self-control: not because some are born 'weaker' than others, but because of the number of stressors that some children are dealing with. That is, the child's problem is not some sort of 'innate' character flaw, but a chronic state of being over-aroused that is draining his capacity to deal with new stressors.

Physiologists think of self-regulation in terms of the operations of the sympathetic nervous system, which provides the energy to meet a challenge, and the parasympathetic nervous system, which helps us to recover from the effort (Lillas & Turnbull 2009).

Think of this in terms of putting your foot on the accelerator or the brakes to deal with changing driving conditions. If we aim to maintain a constant speed, say 100km/h, then we will need to adjust the pressure that we apply to the accelerator to allow for changes to the road, incline and wind. Furthermore driving requires constant changes depending on traffic and speed zones, etc. When we learn to drive a car, learning to accelerate, brake and change gears smoothly takes time and practice.

This is similar to children learning how to self-regulate. Some children, for all sorts of reasons – biological, environmental, social – may be pushing too hard on the accelerator, or jump between gears too quickly, or are slow to accelerate. Children need to master the ability to find the optimum speed or level of speed or arousal. The problem appears to be that if the brakes are used too much, they begin to lose some of their resilience; and the Marshmallow Test is telling us that this is already apparent as young as the age of four.

That is, the problem that we see in the Marshallow Test isn't that a significant number of children (approximately 70 per cent of all four year-olds) are born weaker than those who wait, but that these children are trying to deal with far too much stress, which reduces their ability to deal with an artificially imposed stressor like delaying gratification. Focusing on their behaviour – for example, a lack of self-control – will do nothing to address this underlying problem and, consequently, will do little to help them learn how to exercise self-control.

The Marshmallow Test

5. The primary sources of stress affecting children and young people

There are five major sources of stress in a child's life and thus, we need to think of self-regulation in terms of these five domains:

1) Physiological
2) Emotional
3) Cognitive
4) Social
5) Prosocial.

The Physiological Domain

This domain of self-regulation refers to activity, or the level of energy, in the human nervous system. For example, some children might be hypersensitive to noise made by other children in a playground or to the sounds of bells or buzzers used to control classroom transitions. For other children, sitting still for longer than a few minutes, or sitting on a hard chair, can be very taxing on their nervous system. Some children deal with such overloading of their system by shutting out what's causing it and becoming withdrawn. Others might become over-stimulated or hyperactive, seeking even more of a stimulus in order to feel satiated.

Emotional Domain

Positive emotions (for example, interest, curiosity, happiness) actually serve to produce energy, while negative emotions, not surprisingly, consume great amounts of energy. This makes the latter a very challenging area for self-regulation. Intense negative affects such as anger, frustration, fear, sadness, and anxiety, can make it very difficult for some children to pay attention or to self-distract.

Cognitive Domain

This is the domain of mental processes such as memory, attention, the acquisition and retention of information, and problem solving. Optimal self-regulation in this domain means that a child can efficiently switch and sustain attention, sequence his thoughts, keep several pieces of information in mind at the same time, ignore distractions, and inhibit impulses. The very term 'calmly focused and alert' tells us that there is an intimate connection between a child's physiological and/or emotional arousal and the ability to have sustained attention.

Social Domain

Children vary considerably in their ability to understand the meaning of particular social cues and to behave in a socially appropriate manner. For instance, a student may misinterpret an invitation to express an opinion as an opportunity to dominate or continually interrupt a group discussion. On the other hand, another student may become withdrawn because he misinterprets a teacher's offer to help him with an assignment as a sign that the teacher thinks he is not smart enough to do it on his own. Some children have difficulty recognising the significance of their teacher's tone of voice or facial expression, quite oblivious of his growing impatience or intention. And some children have great difficulty knowing how to express their emotions or intentions in a way that does not overwhelm their peers.

Now commonly referred to as 'social intelligence', this capacity to function optimally in the social domain begins in infancy, as children gradually internalise – initially from their caregivers and subsequently their peers and teachers – the meaning of these subtle social cues. Mastery of this 'first language' is especially important for the child's growing ability to play co-operatively with other children and interact in groups in a classroom. Misunderstanding a social situation, one child may push too hard when dealing with others, while another may not push hard enough. If the child is experiencing problems in the social domain, this can profoundly affect his biological and emotional self-regulation, and vice versa.

Prosocial Domain

Psychologists have traditionally looked at prosocial behaviour as an autonomous domain; a matter of engaging in behaviours that are positive and helpful and that promote social acceptance and friendship. But over the past decade we have learned that a child's prosocial functioning is intimately bound up with all the others in our five-domain model of self-regulation.

Take a child who sees that his friend is crying, perhaps because he has just lost a beloved pet. He needs to understand what his friend is feeling and what he is supposed to do to comfort him. Some children find this sort of situation extremely difficult.

If they are extremely withdrawn they might not notice the other child's distress; if extremely agitated, or experiencing great sadness or anxiety themselves, they might be overwhelmed by the other child's feelings. In fact, recent research has shown that many violent children behave that way because they are overwhelmed by someone else's pain and resort to violence as a coping mechanism, to try to shut those feelings down.

Introducing prosocial functioning as a separate sub-domain of self-regulation, distinct from but obviously closely connected to the social, helps us to recognise that a child needs to learn much more than just how to identify what someone else is thinking or feeling, or mastering the pragmatics of social interaction.

After all, a sociopath is someone who is very good at doing just this, but doesn't have any feelings of empathy. He is only governed by his own desires and very adept at manipulating others. But why does someone become a sociopath? Sociopaths aren't born that way. Perhaps he himself never experienced empathy as a small child; or perhaps he has learned to shut down his feelings as a defence mechanism.

Of course, what we are really after here is reframing children's behaviour. That is, we need to get away from the idea that some kids are born 'unfeeling' or are biologically incapable of developing empathy. Rather, what is happening with these children is that, when confronted with a challenging interpersonal situation they get overwhelmed and might do something 'bad', which in turn heightens their hyper-arousal and sends them on a negative spiral.

If we respond to the child's behaviour by shouting or giving a punishment, this can further entrench feelings of anxiety or shame, pushing the child a little more towards becoming a 'bad kid'. Instead we have to try to figure out what is happening inside that child, always mindful that a child only develops empathy or kindness by staying calm and by experiencing empathy and kindness.

6. Applying the self-regulation lens to the work being done in WA

In virtually every one of the services that I visited during my residency, I saw professionals who were well advanced in their efforts to enhance children's self-regulation in one or more of the above domains. This is the absolutely critical point.

The reason why I met with such an enthusiastic response wherever I went wasn't because the various constituencies were excited to hear about some new discovery; it was, I believe, because they had already been considering this direction for some time. What I think was exciting for them was to hear the theoretical foundation for the successes they were seeing, and to see how they could go further and how all of their efforts could fit together.

There were so many examples of this point that I encountered that it is almost unfair to single out any one of them, but the incident that most sticks out in my mind in this regard was my visit to Roseworth Primary School.

Roseworth Primary School

Just walking into this school was like walking into an oasis. The atmosphere of calmness was palpable, and it was almost with a sense of shock that I learned about some of the challenges that the teachers were dealing with. I was taken to an observational classroom – the Edith Cowan University (ECU) Fogarty Professional Learning Centre – set up under the leadership of Professor Mark Hackling from ECU and funded by the university and the Fogarty Foundation.

I had been asked to observe a class in which there were a significant number of children with special educational needs and to lead a group discussion of some of the things that the teacher didn't notice or might have done differently. It was quite a large class of 24 students with only one teacher and one teaching assistant, both of them relatively young (in their mid-20s).

I was expecting it to be a busy session but, to my amazement, utter calm reigned throughout the entire 40 minutes that we observed. The children were all engaged during this time and potential problems were spotted early and dealt with almost effortlessly.

Dr Shanker speaks to teachers at Roseworth Primary School observational classroom facility

Afterwards the young teacher involved came in to respond to my 'third degree' and it was quite astonishing to see how aware she was of every single current that was running through the class and how articulately she could explain all of the children's issues and why the techniques she was using were so effective. It was, quite simply, one of the most eloquent elucidations of self-regulation I have ever heard and a testament to this young teacher's natural gifts, but also, to the training and support she had received from her principal, Geoff Metcalf, and the ECU faculty.

The visit to Roseworth was an important experience for me in so many ways. It was yet another vivid opportunity for me to see just how beneficial a self-regulation approach is, not only for the students, but for staff as well. It was also an example of how much thought and effort is needed to make such an approach truly effective. I watched how seamlessly all of the children in the school managed their transitions, guided by attentive teachers who provided the 'regulating' scaffold that makes this possible. These teachers were all out in force at the end of the school day, greeting parents by name as they came to pick up their child, and saying goodbye to all the children and telling them how much they looked forward to seeing them again the next day. Everyone – every single child, every single parent, every single teacher, and even the principal – was smiling at the end of the school day, as indeed, were we.

When I was talking about all this with the principal Geoff Metcalf afterwards, he noted how long it had taken him to achieve these results at Roseworth. It is an important point and one which we are very conscious of in our self-regulation schools initiative in the Canadian provinces of BC and Ontario. Learning how to enhance a child's ability to self-regulate takes not only considerable mentoring and group discussions, but a great deal of trial-and-error learning. There is not some sort of manual that could outline, in a series of simple instructions, how to do this in every situation. What does happen quickly is an aspect shift; a sudden perception of how a child or a school can be helped. But what then follows is a slow and steady process of discovering which techniques work best for this child or this school.

Child and Parent Centres

One of the initiatives that most caught my attention was the announcement in the WA Government budget for 2012-13 of funding for 10 Child and Parent Centres including, not surprisingly, one to be located at Roseworth Primary School. These initial 10 centres will be located in public primary schools in disadvantaged areas and will provide a suite of integrated programs and services that will be developed to meet the needs of local families. This might include such services as child health checks and referrals by a nurse; parenting information and programs; counselling and family support delivered by school psychologists; playgroups and early learning programs with parental involvement; and allied health services, such as occupational therapy, speech therapy and physiotherapy.

This is such an important initiative, and one that desperately needs to become universal, rather than targeted. We have done extensive research in this area and found that we have a unique opportunity to enhance the self-regulation of children – all children – between the ages of two to five years. We are now working in several provinces to create such a universal preschool program that will provide at least 20 hours per week from age two years until entry to Kindergarten. The play-based curriculum is grounded in children's interests and challenges them to greater social, emotional and intellectual competence.

Another goal of such programs is to increase parents' active participation in their children's early learning and development. Parents and other family members have, via their emotional relationships with the child, a central role to play in this process. Through play-based activities, parents learn how to tailor their interactions to their child's unique physiological, emotional, cognitive and social needs. In this way they master effective techniques for helping their child to stay regulated and learn how to self-regulate. In the process they also learn how to apply such techniques in their own lives.

It was explained to me that the Child and Parent Centres (CPCs) aim to create a service model that will:

- provide access to multiple services to children and families in a cohesive and holistic way
- recognise the impact of family and community contexts on children's development and learning, and focus on improving outcomes for children, families and communities
- through respectful, collaborative relationships, actively seek to maximise the impact of different disciplinary expertise in a shared intent to respond to family and community contexts.

It goes almost without saying that an extremely important component of such initiatives is the evaluation, something that the faculty at ECU and the Telethon Institute for Child Health Research would be ideally situated to oversee. I mention this because it is so important for us to know the answers to key questions:

- What is the impact of participation in the Child and Parent Centres on children's learning, behaviour and physical and mental health prior to entry to Grade One?

- What is the impact of the CPCs on increasing parental knowledge of child development?
- What is the impact of the CPCs on the number of parenting strategies utilised by parents to support the development of their children?
- What is the impact of the CPCs on increasing the families' networks of support?
- What is the impact of the CPCs on family stress, family functioning and access to resources?
- What is the impact of the CPCs on early educators and other professionals?

What is vital now, and something we are pursuing in our own child and parent centres in Canada, is to embed these programs in a self-regulation framework. This involves the following components:

- Training in the five-domain model of self-regulation for staff.
- Designing the space at the centres according to self-regulation principles.
- Introducing self-regulating activities for parents and children (for example, yoga, breathing classes, kindergym programs).
- Offering evening talks for parents about self-regulation for both children and parents.

Child Health Nurses

Another important initiative that caught my attention was the announcement in the 2012-13 budget of new spending of $58.5 million over four years for early childhood health care.

The funding will provide an additional 100 child health nurses and a major expansion of community child health services across WA. The intended government outcomes of this initiative are:

- a higher percentage of children who receive the universal health checks
- an increase in number of children who are fully immunised
- all children in the care of the State receiving a health assessment and those new to care receiving one within 30 days
- growth in the delivery of intensive services to children and families living in disadvantaged communities
- an increasing number of primary school children who are assessed in response to a parent/teacher concern regarding their health and development
- a significant improvement in the delivery of school health services, in partnership with the Department of Education
- a higher proportion of women who are at risk of anxiety and postnatal depression being identified early and receiving appropriate support.

Ontario has made a significant investment in its Public Health Nurses since the early 1990s and our research tells us that this is one of most effective investments that we have made.[4] We have discovered that, in addition to all of the above, Public Health Nurses have been very effective in assisting communities in assessing their needs and facilitating the development of programs and services to meet those needs. In other words, the program in Ontario has been demonstrated to have highly positive effects in increasing social engagement and support, and fostering a greater sense of community and neighbourhood satisfaction.

4. see Brenda Smith-Chant's presentation 'What Works for Whom, Under What Conditions: Setting the Context - A Brief Realist Summary of Population Health Interventions for Peel Public Health's Nurturing the Next Generation Project'. <http://www.peelregion.ca/health/nurturing/resources/What-Works-for-Whom-14.pdf> This is a draft document prepared for the Nurturing Matters conference February 22-23, 2012. The final document will be available shortly.

Similar to what we are doing with Canadian child and parent centres, we have begun training our public health nurses in self-regulation. This involves an extended course in the material in *Calm, Alert and Learning* (Shanker 2012), adapted to the home-visiting context. The thinking here is that the better nurses can master this material, the better they can serve as a vehicle to help parents enhance their child's self-regulation (for example, by understanding the importance of sleep and diet) and reframe their child's behaviour. The Behaviourist mindset noted at the outset has permeated throughout society and has strongly influenced parenting attitudes. The Canadian nurses are proving to be a remarkably effective tool in bringing about the aspect-shifted described in this report at its most important point: the coal-front of parenting.

headspace

One of the most enjoyable experiences I had was a meeting with the manager, facilitators and Youth Reference Group from the Fremantle and Perth headspace. headspace is an Australian Government initiative that aims to promote and facilitate improvements in the mental health, social wellbeing and economic participation of young Australians aged 12 to 25 years.

headspace centres promote early help-seeking, provide early intervention and use evidence-based treatment and care for young people at risk of developing mental health and substance-use disorders. They are hubs, or one-stop-shops, which provide holistic, coordinated, evidence-based and youth-friendly treatment across primary health, mental health, drug and alcohol use, and social and vocational participation.

Each headspace centre is directed by a lead agency on behalf of a consortium to encourage a whole-of-community approach and engage key stakeholders in the development, establishment, implementation and coordination of headspace services. Private practitioners, such as GPs and psychologists, and co-located organisations also provide services. This structure supports young people by enabling networking and establishing clear referral pathways with other relevant services in the community.

Each headspace centre has a youth reference group made up of young people. The purpose of the youth reference groups include guiding staff to make sure the centre is on the right track and providing a service that is relevant to young people in their region, but varies centre-to-centre (for example, conducting school awareness and hosting forums with young people).

In the course of our discussion the staff made it clear to me that what they most wanted to accomplish was to de-stigmatise problems in mental health, so that young people would become much more aware of, and receptive to, seeking out help. They found the whole conversation about self-regulation not just fascinating, but extremely useful in this regard.

The sources of this stigmatisation are ancient and not just harmful, but incredibly misguided. The historian Roy Porter has written a number of wonderful books on this topic, explaining how western attitudes were strongly shaped by a debate between the Hippocratic doctors, who saw mental illness in biological terms, and Plato, who counselled that the mentally ill should be removed from public sight. Unfortunately, it is a debate that Plato won and we are still needlessly paying the price for his confusion.

The headspace group found the lens of self-regulation especially useful in their on-going efforts to de-stigmatise mental health problems.

Aboriginal Children

This is by far the hardest section for me to write. I had the most wonderful briefing from Kate George, a senior Aboriginal woman who works as a consultant with the Commissioner for Children and Young People, a deeply moving meeting with several Aboriginal leaders and Professor Fiona Stanley, and a truly memorable trip to Roebourne. It is impossible, of course, for an outsider to understand such a complex situation in such a short timeframe. I can only say that I found all these people truly inspiring. And yet it was clear to me that more can and must be done if they are to succeed in their efforts.

The Moorditj Mob from Wesley College helped to open Dr Shanker's keynote address

I say 'must' because I see this is an absolute priority for WA. It is not simply a moral imperative, although it is indeed a moral imperative. I have recently been reading John Lutz's *Makúk* (2008). One can't read this history and not come away with a burning desire to do whatever is possible to atone for the injustices that were done to Native peoples. But it is more than just a moral imperative: it is practical as well.

Ever since Wilkinson and Pickett published *The Spirit Level* (2009), it has been clear to epidemiologists that the wellbeing of a society, in every respect, is a function of the effort that it makes to eradicate such inequities. That is, *The Spirit Level* shows how the mental and physical health of *every* citizen, indeed their very happiness, hinges on how seriously and passionately such problems are addressed. I mentioned at the outset of this report how struck I was by the vigour with which WA was confronting the problems impacting the wellbeing of children and young people. That same spirit absolutely must apply here.

These are incredibly complex issues which are being tackled by the most dedicated people. The best way I could contribute in my short residency was to consider ways in which the early child health and education services that were being delivered could be enhanced. And two key points struck me in this regard:

- First, that Aboriginal children are experiencing extraordinarily high levels of stress, for multiple reasons.
- Second, that the effects of this heightened stress load are showing up at a remarkably young age.

What this means is that, because of problems in self-regulation, the children are arriving in primary school with heightened impulsivity or withdrawal and a diminished capacity to stay calmly focused and alert. In far too many cases, the primary effect of their initial school experience is to exacerbate rather than correct these problems in self-regulation.

The response to such a challenge should not be to impose draconian methods to try to 'correct' problematic behaviours. Teaching is, in fact, as Colin Gibbs so eloquently explains in *To be a Teacher*, the ultimate tool for truly transforming behaviour and bringing about permanent changes in thinking, beliefs and attitudes (Gibbs 2006). But a child can only be taught if he is calmly focused and alert, and he cannot be forced to be calm and attentive.

At the group discussion that we had in Roebourne, a number of people made the point that far too many children are being 'lost' in the preschool and early years of primary school. What we have been experimenting with in Canada in similar environments, with some success, is creating 'self-regulation environments' in which staff trained in this model work with children and their families to learn about self-regulation and how to apply it.

I am not proposing that this might be *the* key to helping these children reach their full potential, but it certainly is *a* key. And it is one that I feel desperately needs to be implemented. For what I found most difficult when I was in Roebourne was seeing the light in the young children's eyes, and knowing that if we don't immediately help them to learn how to self-regulate that light will quickly be extinguished.

Dr Shanker and Michelle Scott held meetings in Roebourne, including a visit to Yaandina Child Care Centre

7. The way forward

In all my travels I have never seen a more beautiful locale than WA, and for that matter, a friendlier and more hospitable populace. It is truly an ideal environment in which to raise active and healthy children. As this report makes clear, it is a goal that WA has embraced, and what is even more encouraging is that the effort is being spearheaded by Western Australia's first Commissioner for Children and Young People.

There are, I believe, four key areas that will be critical to enhancing the self-regulation and wellbeing of children and young people in WA:

1) **A genuine paradigm shift, in which children's behaviours are naturally and instinctively reframed in terms of their self-regulation.**

It is important that the entire community comes to recognise that there simply is no such thing as a bad, a stupid or a lazy child. To be sure, children can be amazingly exasperating, and some more than others! But if we deal with a child with patience and infinite understanding, and constantly ask ourselves why we might be seeing some troubling behaviour and how we might tailor our interactions with the child accordingly, a new child will emerge, and that child will astound you.

2) **A greater financial commitment to the important initiatives now underway in health, mental health, family services, and education, with a clear recognition of the significant immediate as well as downstream cost-benefits of programs that enhance children's self-regulation.**[5]

It is crucial that the government builds on such important initiatives as the Child and Parent Centres, and the additional 100 community child health nurses, and makes these truly universal practices. It is understandable why in such financially constrained times one should begin in a targeted manner, but the evidence is now overwhelmingly clear that the returns, both immediate and long term,

of making these practices universal are by far the most prudent investment that a government can make (Mustard, McCain & Shanker 2007).

3) **A greater social commitment to address those lifestyle factors that might be negatively impinging on children's self-regulation.**

For some time now paediatric organisations have been warning about the dangers of too much time spent watching TV or playing video games, the lack of physical activity, the results of a diet saturated in sugars and fats, and, quite simply, not enough time spent in natural play-based activities. It is urgent that these warnings be taken very seriously.

New technologies are ushering in an unimaginably exciting period of self-discovery and growth, but it is the technology that must be managed, not the 'disturbing behaviours' that result when we ignore the warnings of our leading physicians.

5. Browne G, Byrne C, Roberts J, Gafni A & Whittaker S 2001, When the bough breaks: provider initiated comprehensive care is more effective and less expensive for sole-support parents on social assistance. Social Science & Medicine 53, 1697-1710.

4) **A more effective network of all the compatible services active in the area, all of them working together under the umbrella of self-regulation, each from their unique vantage-point.**

In regards to this last point, I would like to make five specific suggestions:

Coordination and collaboration

It is always difficult to identify the most suitable organisation to facilitate a comprehensive multi-disciplinary effort, but it struck me that the Western Australian Council of Social Service (WACOSS) would be ideal to coordinate and represent the non-government sector and work in collaboration with the Office of Early Childhood and Development in the Department for Education. WACOSS represents 300 member organisations and affiliates and more than 800 organisations involved in the provision of services to the community. It advocates for the community services sector and those who use the services to government, business, decision makers, media and the wider community.

The progress that has been made in Ontario in overcoming the silos and bringing government and non-government agencies together was a slow process in the beginning. Simply mandating regular inter-disciplinary meetings had relatively little effect. There would be considerable enthusiasm for cooperative efforts at the outset, but the realities of workloads soon led to these meetings becoming little more than an opportunity for each agency to report on what they were doing and where they were seeing their greatest obstacles. It was only when all these agencies were brought together under the common framework of self-regulation that we began to see genuine cross-fertilisation between the different bodies involved – not just shared learning and expertise, but also genuine efforts to work together on jointly-defined problems and objectives.

The process of change that occurred in Ontario was kick-started by the report that Margaret McCain and Fraser Mustard published in 1999, the *Early Years Study*. My hope is that this report might serve as a similar catalyst in WA. At my final meeting with the senior management of all of the organisations I had met with during my stay in Perth, it was indeed clear to me that everyone in the room recognised how the framework of self-regulation represented a unique opportunity for them to come together and reinforce the incredibly important work that they are all doing.

International collaboration

I propose the establishment of a formal collaboration between WA and those provinces in Canada that are actively developing self-regulation programs. I have discussed this idea with the leaders of the BC program and they are highly receptive to the idea of sharing training resources for public health workers, teachers, and parents; and creating a virtual space within the structure of our website to foster such a collaboration. Australian researchers are already heavily involved in so much of our current project – for example, the physical activity program, playground design and the physiological research we will be doing to examine the effectiveness of these programs. In addition, we could organise shared lectures and even mentoring programs using communication technologies.

Professor Colleen Hayward, Edith Cowan University; Irina Cattalini, chief executive officer WA Council of Social Service; Michelle Scott

Recognition of self-regulation as a framework

It is essential that we all recognise that self-regulation does not represent a new program. It is a new 'framework' which, we believe, will significantly enhance the effectiveness of all those programs that are currently in operation, as well as the satisfaction and wellbeing of all those involved in the delivery of these programs. As a framework, self-regulation represents a new starting point, which will naturally spark all sorts of new ideas and innovations. As we begin this journey, it will be essential to put in place the tools we will need to assess the efficacy of our efforts and suggest new ways to improve on what we are doing.

This brings me back to Roseworth Primary School, which has already travelled so far down the self-regulation path. The observation classroom set up at the school provides the faculty from Edith Cowan University with the ideal environment in which to monitor the effects of these measures and to train a whole new generation of teachers in this new framework. We should explore the possibility of replicating the research and observation initiatives at Roseworth in a site in BC, so that we can have joint learning sessions and a source of videotaped materials that could be provided for the purposes of distance education. Additionally, I would personally like to see far greater collaborative work being done between Canadian universities and the extraordinary Telethon Institute for Child Health Research.

We have produced a book for the BC initiative, *Calm, Alert and Learning: Classroom Strategies for Self-Regulation* (Shanker 2012). Our intention is to begin working on the second edition almost immediately, drawing on as many classroom experiences as possible from the initial phase. It would be wonderful if WA could be involved in working on this next edition and if examples from WA could be included in the text.

Working with the medical community

It is important to build better ties with the medical community. We created a 'Self-regulation Working Group' at the Hospital for Sick Children in Toronto that is preparing materials for paediatricians and family doctors. These materials are being designed in such a way that the primary care physician can use opportunities such as immunisations to observe potential problems in self-regulation and to educate families about self-regulation. We will also be introducing these materials into medical and nursing school, so that studying self-regulation becomes a core component in health education. It would be highly beneficial to create a joint working group in WA and Toronto to pursue and implement these models.

Bilateral information exchange

I think it would be extremely helpful for both WA and Canada if we were to explore the idea of bilateral information-gathering visits involving, for example, ministers and members of Parliament, directors general of relevant departments and other leaders from the public service, universities and other senior officials. I have spoken of such an idea with several of our senior political and bureaucratic leaders. Canada already has such strong attachments with Australia and there would be great interest in strengthening these ties even further around the issue of self-regulation.

Philip Aylward, Executive Director Child and Adolescent Health Service, Department of Health and Dr Stuart Shanker

8. Conclusion

Let us return, then, to the question with which we started this report: How are the children of Western Australia doing? Well, they are certainly not immune from the stressors that all children in the 21st century are struggling with.

These stressors come in so many different guises. Some of them are physiological: the effects of the environment or excessive electronic media and the resulting decline in the sorts of leisure and play activities that are so beneficial for optimal self-regulation. Some are emotional: the result of the strains that are placed on children and their families. Some are cognitive: the effect of being exposed to media that diminishes the capacity to delay gratification. And some are social: the result of dramatic demographic and cultural changes.

It comes as no surprise then that we see the same sorts of worrying trends in children and young people in Western Australia that we see in all other industrial nations. Perhaps the critical reason I come away from my experience as Thinker in Residence with a strong sense of optimism about the future is that I observed that WA is vigorously responding to these problems rather than denying them.

During my tenure we discussed the many ways in which the framework of self-regulation could enhance and bring together the diverse programs that are currently underway. With such a strong desire for success, and the universal awareness that the future of Western Australia hinges on the healthy development of *all* of its children, I have the utmost confidence that these efforts will not only be successful, but will serve as a model for other societies of how to respond to the greeting, *Umbutu*.

Dr Stuart Shanker
Ontario, Canada July 2012

Summary of residency events

The following is a summary of the events, meetings and master classes that were held over the two-week residency:

Public events			
Event	**Date**	**Partner agency/ies**	**Number of attendees (approximately)**
Keynote lecture Wesley College	5 June	Department for Communities, WACOSS and Child Australia	400
Information session for parents St Mary's Anglican School for Girls	6 June	Department for Communities, WACOSS and Child Australia	450
Breakfast Presentation The University of WA Club	7 June	Alliance for Children at Risk and WACOSS	130
North metropolitan forum Emerald Centre, Edgewater	8 June	Departments of Health and Education	120
South metropolitan forum Champion Centre, Armadale	14 June	Departments of Health and Education	300

Professional meetings			
Event	**Date**	**Partner agency/ies**	**Number of attendees (approximately)**
Edith Cowan University – academic staff and PHD students	4 June	Edith Cowan University	45
Breakfast meeting for Chief Executive Offices and Directors General	6 June	St John of God Healthcare Group	12
Disability sector – forum for managers	7 June	Disability Services Commission	22
Disability sector – forum for allied health workers	7 June	Disability Services Commission	25
Scientific seminar	6 June	Telethon Institute for Child Health Research	40
Centre for Research Excellence	7 June	Telethon Institute for Child Health Research	8
headspace	13 June	headspace Perth and Fremantle	10
Presentation to Members of Parliament	14 June	Joint Standing Committee on the Commissioner for Children and Young People	16
Round table with senior members of the Aboriginal community	15 June	Telethon Institute for Child Health Research	6
Reflections seminar	15 June	N/A	31

Master class/ workshops			
Event	**Date**	**Partner agency/ies**	**Number of attendees (approximately)**
Master class - Roseworth Primary School	5 June	Edith Cowan University, Department of Education	15
Master class for clinicians	8 & 9 June	Department of Health	26
Master classes for senior practitioners in the early childhood sector	9 &10 June	Department for Communities, WACOSS and Child Australia	50
Workshop	13 June	Departments of Education and Health	36

Regional visit - Roebourne			
Event	**Date**	**Partner agency/ies**	**Number of attendees (approximately)**
Information session – community members	12 June	Rio Tinto & Department of Education	13
Workshop with service providers	12 June	Rio Tinto & Department of Education	27
Workshop with educators and early childhood practitioners	12 June	Rio Tinto & Department of Education	11

Additionally, Dr Shanker held individual meetings with:

- Minister for Mental Health
- Minister for Education
- Minister for Communities; Child Protection; and Youth
- the executive group of the Department of Education
- the executive group of the Mental Health Commission.

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The views expressed in this report are those of Dr Stuart Shanker and are not necessarily those of the Commissioner for Children and Young People or the partner agencies listed above.

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