

Self-Regulation

By Dr Stuart Shanker



There is a growing interest, and debate, about the ways in which our development, our brains, our behaviour and our attitudes are connected. Importantly self-regulation has been identified as a key factor in wellbeing, learning and development.

Dr Stuart Shanker provides us with a discussion of his research in this area and the implications this has for supporting the development of children in general and the applications to learning environments.

Basic Concept - Self-Regulation

Self-regulation is the ability to manage your own energy states, emotions, behaviours and attention, in ways that are socially acceptable and help achieve positive goals, such as maintaining good relationships, learning and maintaining wellbeing.

There is an important difference revealed by our studies, at the Milton and Ethel Harris Research Initiative (MEHRI), in York University, between *self-regulation* and *self-control*.

Self-regulation does not involve the inhibiting of impulses but, rather, being able to deal effectively and efficiently with stressors – for example, noise, light, and movement, or frightening experiences during infancy and childhood – that can result in a chronic state of energy-depletion.

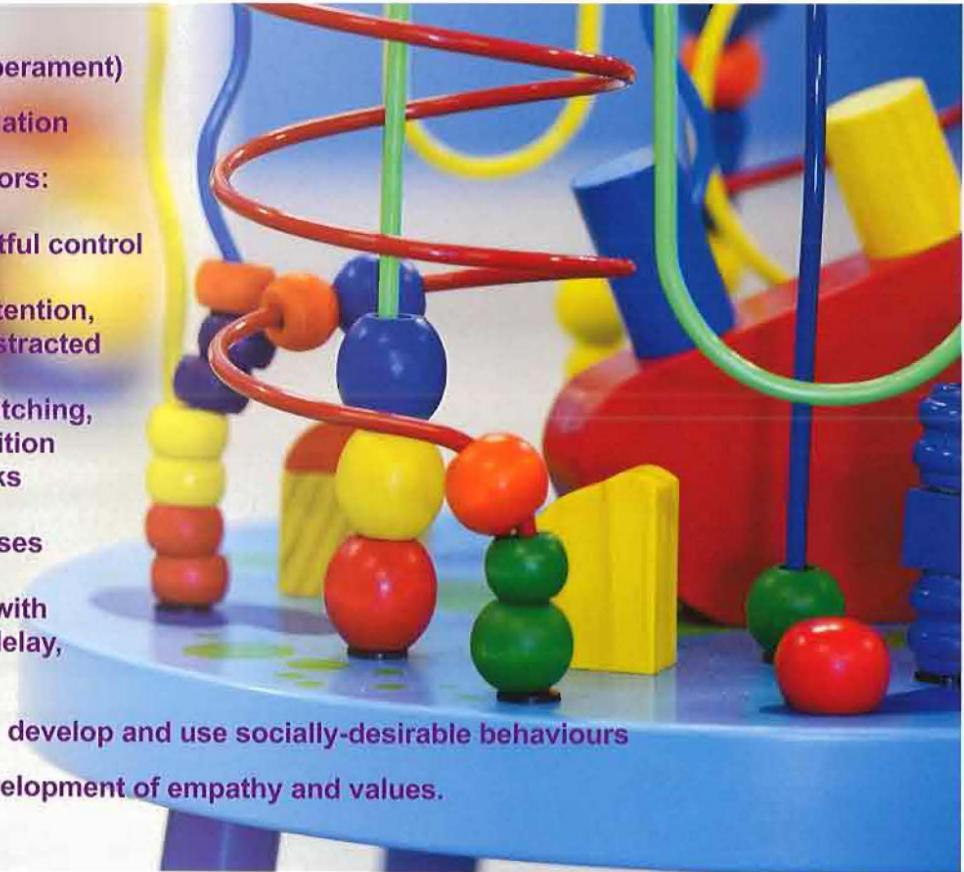
Whatever a child is actively doing demands fuel, and the size of that cost will vary according to the activity, the situation, and most importantly, the child. In other words, two children might have to expend very different amounts of energy – be at very different points on the arousal continuum – in order to engage in the same activity.

The problem is not that some children have less of a natural self-control reserve, however, but that some children have to work much harder than others to perform the same tasks, and it is this expenditure that so seriously depletes their capacity to meet subsequent challenges.

Five Aspects of Self-Regulation

We have determined that there are five aspects of self-regulation. These take into account different factors such as biological temperament and social skills. The ability to self-regulate is a result of a combination of these five factors. The five aspects of self-regulation are:

1. **Biology (Temperament)**
2. **Emotion-regulation**
3. **Cognitive factors:**
 - display effortful control
 - sustained attention, not easily distracted
 - attention switching, able to transition between tasks
 - inhibit impulses
 - able to deal with frustration, delay, distractions
4. **Social: able to develop and use socially-desirable behaviours**
5. **Moral: the development of empathy and values.**



Self-Regulation and Cars

We can visualize children's ability to self-regulate by thinking about the processes of driving a car. If we aim to maintain a constant rate of acceleration, say 100km/ ph, 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 conditions and speed zones *etc*. When we learn to drive a car learning to accelerate, brake and changes gears smoothly takes time and practice.

This is quite similar to children learning to self-regulate. Some children are always pushing too hard on the accelerator, while others jump between gears quickly and some are slow to accelerate. Children need to master the ability to find the optimum speed or level of speed or arousal. The ability to regulate the level of arousal underlies all levels of self-regulation.



The stages of arousal are: asleep, drowsy, hypoalert, calmly focused and alert, hyperalert and flooded. Children need to be able to find the appropriate level of arousal for the situation they are experiencing. For example a child who is hyperalert may have difficulties sitting on the mat and listening to a story. A child who has difficulty engaging in these critical social experiences because of the drain on his nervous system can indeed be helped; but only if he is first understood.

Why is Self-Regulation Important?

Over the past decade there's been an explosion of research on self-regulation in regards to a broad range of mental and physical problems. These problems are not caused by difficulties in self-regulation. They all have their own unique biological and environmental factors. However difficulties with self-regulation are a factor in the development of mental health problems and self-regulation can be a predictive factor.

Problems with self-regulation during children's early development can be a risk factor for the development of:

- developmental disorders
- internalising problems
- externalising problems
- personality disorders
- memory disorders
- alcoholism
- risky behaviours
- obesity
- diabetes and cancer
- coronary heart disease
- immune system disorders such as: asthma, allergies, chronic fatigue syndrome, and rheumatoid arthritis.

In a now famous experiment on self-regulation by Mischel et al. (1989) children were told they can have one marshmallow now or several if they wait until experimenter comes back into the room. Around 30% of 4 year-olds were able to wait. The children who were able to wait had higher academic achievements later in life, lower antisocial behaviour and reduced susceptibility to drug use (Mischel, Shoda & Rodriguez 1989).

This is a classic experiment designed to measure self-control (delay of gratification). But the more a child is in a depleted energy state the harder it is for that child to exercise self-control. We have found that the key to helping such children is not to try to *strengthen* their willpower but rather to identify and to reduce the stresses on their nervous system, so that they have the resources to control their impulses.

Four Key Practices to Enhance Children's Self-Regulation

There are four key practices that children's services staff can undertake in order to enhance children's development of self-regulation.

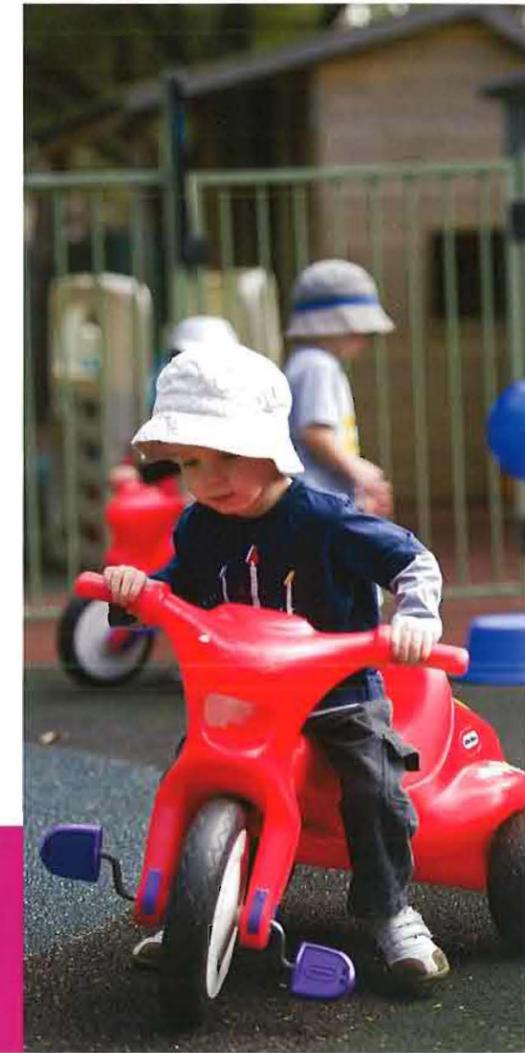
BE A DETECTIVE! Try to figure out your child's stressors, what helps the child stay calm and alert, what leaves a child hypo- or hyper-aroused?

EXERCISE! For a child who wakes up irritable, exercise that works their deep muscles is very effective.

MINDFULNESS PROGRAMS. By using mindfulness principles we can help children to identify their own arousal states. Try using the car analogy for example my engine is running really fast, really slow or just right. Once they begin to understand their own arousal states we can help them to learn how they can get to "Just Right" on their own. A physical activity such as stretching, push-ups, or star jumps can be very regulating: if we make it fun!

PLAY. When play emerges from children's interests it will engage their focus. It will help them to consider the perspectives of others and figure out what they are thinking. Play encourages communication about wants and fosters connections between objects, people & ideas. It is a challenge that children can take on which requires self-direction in order to maintain.

"WE NEED TO FOCUS ON THE EMOTIONAL QUALITIES THAT CREATE MENTALLY HEALTHY CHILDREN: THEIR MOTIVATION, CURIOSITY, EMPATHY, EMOTIONAL RANGE, SELF-ESTEEM, INTERNAL DISCIPLINE, CREATIVITY, MORAL INTEGRITY." *Stuart Shanker*



This article has been adapted from the following publications by Stuart Shanker:

- Stuart Shanker (2009) Enhancing the Mental Wellness of Children, *Child & Family Professional*, 12:3
 Stuart Shanker (2010) Self-Regulation: Calm, Alert and Learning, *Education Canada*, 50:3
 Stuart Shanker (in press) Self-regulation and the transformation of aggression, *Peace*
 Stuart Shanker (in press) Building Healthy Minds. Sharna Olfman (Ed), *Drugging our Children*, Praeger Press.
 Stuart Shanker (in press). Emotion regulation through the ages. In in A Foolen, U Luedke, J Zlatev, & T Racine (eds), *Moving ourselves, moving others: The role of (e)motion in intersubjectivity, consciousness and language*. London, John Benjamins.
 Stuart Shanker & Roger Downer (in press), *Enhancing the Potential in Children (Epic)*. In Denise Hevey (ed), *Policy Issues in the Early Years*. Sage
 Devin Casenhiser, Stuart Shanker & Jim Stieben (in press), *Learning through interaction. Autism: The international Journal of Research and Practice*.

References:

- Mischel, W., Shoda, Y., & Rodriguez, M. L. (1989). Delay of gratification in children. *Science*, 244, 933-938.