Self Regulation for Children, Adolescents and Families
A Sensory Motor Approach

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Inside Out Occupational Therapy Group
Perth 2013
Objectives for Tonight

- To outline the role of Occupational Therapy in Child and Adolescent Mental Health
- To explore the complex relationship between a child’s emotional and physical development
- To explore sensory processing and its impact on self regulation
- To introduce a model of practice which targets self regulation skills in children, adolescents and their families
“Occupational therapists use a knowledge base of neurology, anatomy, physiology, kinesiology, child development, psychology, psychosocial development, activity-task analysis, and therapeutic techniques. They are trained to treat clients holistically, addressing their cognitive, emotional, and physical needs though functional, activity based treatment.”

(Williams and Shellenberger, 1992, p.5-6)
What Do We Assess and Treat?

Figure 1-3. Printed with permission. © Taylor/Trott 1991
1-4 “How do’s your engine run?” Williams & Shellenberger, 1996, p.4
The OT’s Role in CAMHS

The OT is a member of a multi-disciplinary team offering a developmental perspective in looking at a child’s (and family’s) difficulties.

Roles include:
- Developmental assessment
- Formulation and Differential Diagnosis
- Individual therapy and counselling (eg, Alert Program, Sensory Motor Arousal Regulation Therapy, Cognitive Orientation to Occupational Performance, skill acquisition based interventions)
- School liaison and planning
- Group therapy (eg, alert, social skills, drumbeat, adolescent girl’s group)
- Case management
- Community liaison and program coordination
- Provision of staff development and supervision

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Children’s Profiles who attend CAHDS

- 100% of children seen by OT had two or more areas of difficulty that related to occupational dysfunction.

- 73% of children had 6 or more identified OT issues following assessment, that is, 73% of children scored below the 17th Percentile in 6 or more assessment areas.

- 13 clinical areas are present in greater than 50% of the clients seen by Occupational Therapy.

Langford and Ho, 2013
Children’s Profiles who attend CAHDS

- 91% of children present with sensory integration difficulties, and the majority scored below the 2nd Percentile.
- 88% of children who were assessed using the ABAS scored in the Below Average or Low categories.
- 80% of all children assessed had an identified handwriting issue.
- 71% of children who have visual perceptual difficulties display significant variability in their perceptual skills.
- 70% of clients present with sensory seeking behaviours.
- 67% of children assessed have planning or organisational skill difficulties.
- 60% of clients assessed had auditory filtering and processing difficulties.
- 59% of children assessed have insufficient leisure opportunities.
- 55% of CAHDS children have an identified gross motor difficulty as assessed on a standardised measure.
- 51% of children have difficulties with balance.
- 45% of children assessed had an ocular motor irregularity.

Langford and Ho, 2013
A complex relationship

Social/Family

Developmental

Emotional/Behavioural

Cognitive/Academic

Medical/Physical
Risk Factors for Development

- Genetic
- Temperament
- Caregiver – parenting behaviours and care
- Attachment quality
- Neuropsychological deficits due to pre or peri-natal disruptions to neural development
- Poor physical health or disability
- Family discord and violence
- Social and cultural disadvantage
- Psychological trauma e.g. child abuse or neglect
Developmental Issues

• Therapeutic and enrichment experiences must be provided to a child in an appropriate sequence and matched to the child’s level of neurodevelopment. In turn this matching process is dependent upon adequate assessment of the child’s development in the key areas of physical/motor, behavioural, emotional, social and cognitive domains (Perry, 2006).
Matching therapeutic activities to developmental stage

It is important that therapy activities are provided in the sequence that reflects normal development. *eg. if you are unable to regulate your physical, sensory & emotional states then conventional cognitive or insight based therapies may be less effective.*
What is Self Regulation?

Defined As....

the 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’ (Shanker, 2012, p.12).
Self Regulation

• Shanker (2012) uses a driving analogy to describe self-regulation.

• Driving conditions constantly change (eg, traffic, speed zones) and the driver is required to adjust acceleration, braking and shift gears accordingly.
The 5 levels of Self-Regulation - what does it involve?

5 Levels of Self-Regulation
1. Biology (temperament)
2. Emotional regulation
3. Cognition (effortful control)
4. Social (socially appropriate behaviours)
5. Moral (empathy, values)

(Shanker, 2012)
Self Regulation Difficulties

- Frequently we get caught up in how to manage a child’s difficult behaviour, before we understand it.

- Poorly adaptive or challenging behaviours in many children may have their roots in difficulties with sensory processing.

- Sensory processing is ‘invisible’ so we must become detectives and recognise clues to the sensory basis for a child’s behaviour.

- Once understood, intervention approaches can be matched to a child’s needs and promote learning and occupational performance.
Arousal: our ability to maintain alertness and make transitions between different states of sleep and wakefulness.

If a child can regulate his arousal, it allows him to maintain attention, organise action and affect.

Mutual regulatory influence on the 4 A’s

Williamson and Anzalone, 2001

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Arousal Theory

Radiations to cerebral cortex

Limbic system

Visual input

Reticular formation

Ascending general sensory fibres of spinoreticular tracts

Cerebellum

Input from ears (auditory and vestibular)

Descending motor projections to reticulospinal tracts
Arousal levels are regulated through the reticular formation and its interactions with the limbic structures, hypothalamus and its influence over the autonomic nervous system.

- **Spinoreticular tracts**: input of discriminative and protective sensory input

- **Vestibular system**: modulating effects, muscle tone, balance, posture
  - Slow, linear, rhythmical movement – calming
  - Fast, angular, sudden movement - alerting
  - Vestibular-Auditory-Ocular triad

- **Limbic**: modulates, dampens and regulates fluctuations in attentional responses, includes feelings, anticipation and motivation. Emotional tone. Limbic system receives sensory input and if not modulated, it can “take over”
  - Flight – distractible, escape, clowning around
  - Fright – clingy, tearful, reluctance to separate, withdraws, hides, “I can’t”
  - Fight – frustration, explosive, aggressive, resistive, acting out, “I won’t” “No!”
  - Adrenalin, cortisol, histamine “stress chemistry”

- **Cortex**: selective cortical inhibition and excitation via the corticoreticular fibres

- **Cerebellum**: processes proprioceptive input and communicates with the reticular formation in the midbrain. Inhibition functions, both calming and alerting effects.
  - Deep pressure touch releases dopamine “relaxation chemistry”
  - Movement releases endorphins
Top down vs bottom up

- Top Down (Cortical inhibition) – we use strategies such as self talk and thinking strategies to stay on task. “Paying attention” – a child usually ‘pays’ for it, hard to sustain if arousal is not matched to the task.

- Bottom Up (Cerebellum inhibition) – heavy work with the body’s muscles and joints, modulates arousal and therefore promotes focus and attention. Often a child engages in ‘bottom up’ regulation subconsciously or intuitively.
Sensation enables an individual to attain and sustain an optimal level of arousal.

Effective sensory processing is strongly linked to emotional well-being. For example:

- Poor vestibular processing – anxiety/fear/clingy/labile
- Hypersensitivities to touch, noise – anxiety (protection mode)
- Weak proprioceptive processing – lowered self confidence, feelings of inadequacy, frustration, feel insecure within their bodies, don’t trust themselves
- Hyposensitive – depressed affect, limited interactions
- Can influence the formation of primary attachments
Sensory Thresholds

Threshold – point of initial responsivity to sensory input.

Dunn, 1997

It in not a discreet, stationary point of detection. Rather, it is a central process through which input from multiple sensory modalities is ‘summed’ over time and space.

Variable, influenced by the accumulation of sensory input over time, the type and intensity of the input, the rate of recovery from each stimulus, pre-existing arousal state, previous sensory experiences and motivation.

“In most of us, this threshold is high enough that we can tolerate the complexity and stimulation inherent in the environment, yet low enough that we can perceive subtle changes and novelty in the environment.”

Williamson and Anzalone, 2001

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Threshold Types

- A low threshold results in arousal with little input
- A high threshold requires increased input
- Thresholds should be high enough to enable the tolerance of complexities however low enough to be responsive to changes
- Dependent on the type and amount of sensory stimuli, the initial arousal state, previous experience and temperament (Ogden, Minton & Pain, 2006)
Window of Tolerance

Hyperarousal Zone
- Increased sensation
- Emotional reactivity
- Hypervigilance
- Intrusive imagery
- Disorganised cognitive processing

Hypoarousal Zone
- Relative absence of sensation
- Numbing of emotions
- Disabled cognitive processing
- Reduced physical movement

Ogden, Minton & Pain, 2006, p.27
The ability to process information depends on the “width” of the window.

A wide window correlates with the ability to cope with greater extremes of arousal and to process more complex information.

A narrow window correlates with fluctuations of dysregulation.

Children with trauma are more likely to have a narrow “window of tolerance” with dysregulated arousal.

(Ogden, Minton & Pain, 2006)
Figure 6: Autonomic Nervous System Arousal Patterns and Correlations to Sensory Modulation and the Window of Tolerance Scales

<table>
<thead>
<tr>
<th>Low Neurological Threshold for Stimulation (Dunn, 1999)</th>
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<tbody>
<tr>
<td>10 Sensory Over-responsivity</td>
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<tr>
<td>Sympathetic NS (Porges, 1995)</td>
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<td>A.</td>
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<tr>
<td>9</td>
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<tr>
<td>8</td>
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<tr>
<td>7 Optimal Zone of Arousal</td>
</tr>
<tr>
<td>Ventrivagal (Porges, 1995)</td>
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<tr>
<td>6</td>
</tr>
<tr>
<td>B.</td>
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<tr>
<td>5 Goal: To increase system flexibility (Ayres) and “window of tolerance” (Siegel) to support adaptation, functional occupational performance patterns and recovery</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>3 Sensory Under-responsivity</td>
</tr>
<tr>
<td>Dorsivagal (Porges, 1995)</td>
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</table>

High Neurological Threshold for Stimulation (Dunn, 1999)

- Increased hyper-sensitivity, over-responsivity
- Hyper-vigilance; emotional reactivity
- Perceptual distortions; intrusive thoughts
- Psychomotor agitation
- Decreased cognitive/emotional flexibility
- Decreased functional communication
- Decreased occupational performance
- Increased overall system adaptability
- Increased overall system flexibility
- Increased self-regulation and function
- Increased occupational performance
- Decreased, low or poor sensory registration
- Decreased energy; lethargy, weakness
- Withdrawn/Avoidant
- Perceptual distortions; flattened affect
- Increased cognitive/emotional flexibility
- Decreased functional communication
- Decreased occupational performance

Semisomatic Experiences over Time

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Types of Sensory Input

- Visual
- Auditory
- Tactile (light and deep pressure touch)
- Vestibular (movement)
- Proprioceptive (traction or compression of joints)
- Gustatory (taste)
- Olfactory (smell)
Sensory Integration

WHAT WE SEE
HEAR
TOUCH
TASTE
SMELL

HOW WE EXPERIENCE:
MOVEMENT
GRAVITY

FEEDBACK

DEMONSTRATE KNOWLEDGE

LEARN

INTERACT WITH OTHERS

INTERACT WITH THE ENVIRONMENT

MOVE

HAVE SELF-ESTEEM

HAVE SELF-CONTROL

EXPRESS FEELINGS

INPUT

ATTEND

OUTPUT

Shellenberger & Williams, 1996, p.3

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What is Sensory Processing?

Sensory processing refers to the way in which our bodies notice, respond to and use sensory information. Sensory integration is the part of this in which sensory input from our bodies and the environment is put together and sorted out, and then used so that we can make an adaptive or appropriate response in any situation.

Wakeford, 2006
Qualities of Sensory Input

- Frequency
- Duration
- Intensity
- Rhythm/Predictability
- Complexity
- Novelty
Nervous System Maturity

- Children commonly need more frequency, higher intensity and longer duration of sensorimotor input to regulate than adults.

- Adult techniques are therefore more subtle and socially appropriate.

- Children often have less control over their behaviours eg: wriggling on the mat, rocking on their chair, sucking their thumb or chewing on their collar or sleeve. Often these children are labelled “difficult” or “disruptive.”

- Self regulation abilities improve as executive functioning matures. Increased capacity within working memory, planning skills, metacognition, sequencing and comprehending patterns, internalised speech, self-questioning, problem solving and selective attention is linked to improved self-regulation skills. Sensorimotor strategies are able to be ‘taught’ so that the child executes voluntary control to regulate his behaviour.

Bronson, 2000
Two Outcomes of Sensory Processing:

1. Modulation –
   • regulate arousal for any given situation

1. Praxis –
   • ideation/perception (the goal)
   • motor planning (sensorimotor awareness and sequencing)
   • execution of new motor patterns (coordination and motor skills)
Categories:

Sensory Processing Disorder

- Sensory Modulation Disorder
- Sensory Discrimination Disorder
- Sensory-Based Motor Disorder

SOR = Sensory Over-responsivity
SUR = Sensory Under-responsivity
SS = Sensory Seeking

Postural Disorders
Dyspraxia

Kranowitz, 2005, p.10
Sensory Modulation Disorder

The brain locates, sorts and orders sensations – somewhat as a traffic policeman directs moving cars. When sensations flow in an organised or interpreted manner, the brain can use those sensations to form perceptions, behaviours and learning. When the flow of sensations is disorganised, life can be like a rush-hour traffic jam (Ayres, 1979).
Sensory Modulation Disorder

A child who is unable to typically process sensory information may not be able to:

1. Reduce sensory input ie, they are over-sensitive or have a low threshold or
2. They can not increase their sensitivity to the input (ie, they are under-sensitive or have a high threshold).

Their behaviour may then try to regulate their sensory input, which may not always be the appropriate behaviour to the time or situation. A child may have a combination of processing difficulties dependent on the type of sensory input.
Behavioural Responses

(Winnie Dunn, PhD, OTR/L; Model of Sensory Processing)
Sensory Integration issues are present in almost all clients seen by OT.

<table>
<thead>
<tr>
<th>Sensory Integration Area</th>
<th>Percentage of Clients Seen</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>% Below Average</td>
</tr>
<tr>
<td>Sensory Seeking Profile</td>
<td>23%</td>
</tr>
<tr>
<td>Low Registration Profile</td>
<td>11%</td>
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<tr>
<td>Sensory Avoidant Profile</td>
<td>8%</td>
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<tr>
<td>Sensory Sensitive Profile</td>
<td>16%</td>
</tr>
<tr>
<td>Auditroy Filtering and Processing Issue</td>
<td>23%</td>
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</tbody>
</table>

Percentage of children assessed who have an identified sensory integration issue: 91%

Note: Internal equation rounding means that there may be a slight discrepancy between the total percentage and the constituent percentages.
Dyspraxia

Problems in conceptualising, organising, and directing unfamiliar purposeful action.

Indicators:
• Absence of flexibility and creativity
• Limited complexity of play
• Low frustration tolerance
• “Crash” solutions
• Disorganised
• Poor quality of fine motor skills
• Poor temporal awareness and sequencing of daily living tasks
• Behavioural rigidity
• Reduced speed in performance

• Low scores on a Standardised Assessment (eg: BOT-2 or Movement ABC)
Family Functioning and the Social Consequences of Mismatched Arousal

- Reflect back on sensory modulation worksheet at beginning and what are some of the dynamics that occur in your household?

- Often a problem exists if there is a mismatch between a child and caregiver’s sensory needs.

- Helping parents (and siblings) understand their child’s behaviour enables better interactional patterns, develops compassion.

- Family-based sensory diets – integrated into family routines.

- Consider the child’s other environments – school, leisure pursuits etc.
The Alert Program

The Alert Program is a fun and interactive therapy approach that assists children to understand, maintain and change their level of alertness to engage appropriately during daily activities.

The program is grounded in evidence relating to the neurological processes that occur in our brain when integrating sensory information about our body and the environment.
Alert program goals:

- To educate children, parents and teachers about different arousal (alert) states and how this impacts on attention, learning and behaviour.

- Assist children to recognize and build a ‘tool kit’ of sensory self-regulation strategies to use during different daily tasks and activities.

- To give teachers and parents a vocabulary and framework to use when assisting children to self-regulate their arousal levels. This is achieved through a car engine analogy.

- To assist teachers and parents to understand the functions of children’s behaviour and the necessary adaptive responses children may have when engaging in particular tasks or environments.
Engine Speeds
Using the Senses

Ideas to LOWER engine speeds

<table>
<thead>
<tr>
<th>Sensory Experience</th>
<th>Tune-Up Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put something in your mouth</td>
<td>• Eat chewy, tough or crunchy foods (chewing gum, minties, crunchy carrot sticks, icy poles)</td>
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<tr>
<td></td>
<td>• Lick or suck on a lolly</td>
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<td></td>
<td>• Have a warm drink</td>
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<td></td>
<td>• Suck a thick milkshake through a straw</td>
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<td></td>
<td>• Blow bubbles</td>
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<td></td>
<td>• Blow paint pictures</td>
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<td></td>
<td>• Blow cotton balls with a straw – have a race!</td>
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<tr>
<td></td>
<td>• Feel the ‘buzz’ from an electric toothbrush</td>
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<tr>
<td></td>
<td>• Try sweet, sour, savory flavors to stimulate the taste buds</td>
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<table>
<thead>
<tr>
<th>Get Moving</th>
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<tbody>
<tr>
<td></td>
<td>• Take regular movement breaks during the day</td>
</tr>
<tr>
<td></td>
<td>• Slow, rhythmical and predictable movements (e.g. rocking chair, going for a walk)</td>
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<tr>
<td></td>
<td>• Heavy work. See the heavy work page.</td>
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</table>
# Ideas to LOWER engine speeds

<table>
<thead>
<tr>
<th>Touch</th>
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<tbody>
<tr>
<td>• Deep massage</td>
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<tr>
<td>• Bear hugs</td>
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<tr>
<td>• Wearing tight clothing</td>
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<tr>
<td>• Steam roller with a gym-ball</td>
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<td>• Roll up like a sausage roll in a blanket</td>
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<td>• Play 'stacks on'</td>
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<tr>
<td>• Fiddle with resistive theraputty or plasticine</td>
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<tr>
<td>• Squeeze a stress ball</td>
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<tr>
<td>• Have a warm bath</td>
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<tr>
<td>• Cuddle a wheat pack or hot water bottle</td>
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<thead>
<tr>
<th>Look</th>
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<tr>
<td>• Dim the lighting</td>
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<td>• Move to a space with neutral colours</td>
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<tr>
<td>• Look at the fish swimming slowly in the fish tank</td>
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<tr>
<td>• Reduce the clutter on the school desk for less visual distractions</td>
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<tr>
<td>• Seat the child at the front of the classroom to reduce distractions from peers and increase attention</td>
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</table>
# Ideas to LOWER engine speeds

<table>
<thead>
<tr>
<th>Listen</th>
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<tbody>
<tr>
<td>• Put some headphones on and listen to a rhythmical beat</td>
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<tr>
<td>• Play a musical instrument to a steady beat (e.g. bang the drums, blow a horn)</td>
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<td>• Decrease background noises such as the tv or radio</td>
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<tr>
<td>• Put ear plugs in to dull environmental sounds</td>
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<tr>
<td>• Create a ‘quiet’ space at home or at school</td>
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<tr>
<td>Sensory Experience</td>
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<tr>
<td>Put something in your mouth</td>
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Ideas to **INCREASE** engine speeds

| Touch                | - Fiddle with toys or items of different textures – soft, squishy, hard, rough, smooth.  
|                      | - Stretch rubber bands, slinkys, theraputty  
|                      | - Twiddle with wikki sticks, pipe cleaners, bendable figures.  
|                      | - Be creative with fiddly toys.  

| Look                 | - Bright lights  
|                      | - Different colours  
|                      | - Variety in the environment  
|                      | - Use animations or gestures to grab attention  

| Listen               | - Listen to sounds that are dysrhythmical, jumpy, loud!  
|                      | - Upbeat music with a consistent rhythm will help children to stay just right.  

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Age Appropriate

- **Be creative** – think of the child or young persons’ interests and what they gravitate towards. Do more – increase the frequency and/or intensity

- **Be a detective** – when do they demonstrate good self-regulation abilities? What were the precursors? What was the sensory environment like? What was the interpersonal environment like? How can you replicate this?

- **Trial and Error** – experiment with different tools and monitor how effective they are. Tool vs Toy – be patient and allow the novelty factor to wear off.

- **Offer Choice** – important for all children, including teenagers

- **Do it together** – give them ownership
Heavy Work Classroom Strategies

- Yoga poses - Dead bug
- Wall falling down
- Power Up station – star jumps, burpees, animal walks, wheelbarrow walks, wall sits, squats with hands on head, jump and touch above the line
- Marching with patting, clapping (rhythm)
- Favourite class song for transitions
- Chair heavy work
- Stretching
- Partner activities – push and pull, back to back, back massage
- Water Bottles with straws
- Crunch and Sip programs
Adolescents...

**Movement** – riding a bike; skateboard; pogo stick; running or jogging; walking/hiking; dancing; gardening; shopping; lifting weights; swimming, chewing gum

**Touch/temperature** – massage; blanket wraps; pottery/clay work; the feel of sunlight; warm/cold bath or shower; cooking/baking

**Auditory** – enjoying the quiet; listening to music; meditation or relaxation CDs, plays/theatre; rain; whistling; humming; singing

**Vision/looking** – photos; sunset/sunrise; a fire; art; movies; reading; cloud formations, lava lamps

**Olfactory/smelling** – scented candles; essential oils, aftershave/perfume; baking/cooking; flowers; herbal teas

(Champagne, 2011)

Diane Henry – Tools for Teenagers

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“The sensorimotor experiences a person requires to interact effectively with the environment” (Learning Through the Senses, p.184)

A sensory diet can help achieve and maintain optimal sensory processing and is recommended following assessment of a child’s sensory needs.

A sensory diet needs to be embedded in a child or adolescent’s routine to help them maintain a calm, alert state during the day.

Need to consider

- Daily routines - schedules, before activities of daily living, before/end class; getting ready for bed, nap time . . .
- Timing of transitions - change from home to school, play time to dinner. . .
POOR REGISTRATION

Notable behaviors: may seem uninterested, self-absorbed, unemotional, may not notice what is going on around them; may seem overly tired or apathetic

Goal: To have child notice and respond to relevant sensory cues in the environment

Strategies:
• Enhance task and context features of daily routines (e.g., provide activities to increase intensity, frequency, or duration of sensory experiences)

For example:
• Add stronger visual cues to activities such as bright contrasts or large scale art activities
• Add tactile stimuli during social or self-care routines (bear hugs to greet, lotion after hand washing, texture added to finger paints)
• Increase movement experiences
• Add strong smell or taste components to activities

(Wakeford, 2006)
SENSORY SEEKING

**Notable behaviours**: may be very active, continuously doing something, excitable, may seem to take great pleasure in sensory experiences, and so try to create more of these for themselves

**Goal**: To select activities with more intense sensory experiences that are consistent with the child’s sensory needs and still socially acceptable behaviours (so participation can occur with fewer interruptions from sensory seeking behaviour)

**Strategies**:
- Provide appropriate channels for needed activity and intensify sensory aspects of task and context, such as:
  - Alternate active and passive activities in schedule
  - Provide socially appropriate outlets for sensory needs, such as helping to run errands, collect art supplies; move chairs and desks, help clean tables, etc.

(Wakeford, 2006)
SENSITIVITY TO STIMULI

**Notable behaviors:** Distractible, especially in busy or "complex" settings, may be a "complainer" as they tend to notice and comment on sensory events more than others.

**Goal:** To structure sensory challenges to be predictable, to minimize chance the of unexpected stimuli, and to minimize generating aversion to typical activities.

**Strategies:**
- Provide controlled predictable patterns of sensory experiences in tasks and daily routines. For example:
  - Child could always be first or last in line
  - Toilet or diaper changing routines (and other self-care routines) always the same, with touch predictable
  - Minimize extraneous stimuli (noise, visual, lots of kids in one place, etc.) in environment, especially during tasks that are difficult for the child already.
  - Provide separate or structured spaces that prevent the child from experiencing a lot of unpredictable touch (carpet square for each child at circle, etc.)

(Wakeford, 2006)
SENSATION AVOIDING

Notable behaviours: may seem uncooperative, rule-bound, drive by ritual, don't like change, do like structure

Goal: To support continued engagement in activities while building coping strategies to use when faced with new sensory challenges (successful engagement in new sensory experiences enables the child to gradually build a broader range of appropriate routines)

Strategies:
• Introduce new stimuli systematically into daily routines (honour child’s need to have some control or limit input)
• Carefully construct events to introduce a wider range of sensory experiences (one thing at a time). For example:
  • Allow child some control over washing face/brushing teeth
  • Introduce new foods slowly and gradually and allow time to accommodate
  • Provide slow predictable movement experiences
  • Grade/adapt sensory toys and activities (playdoh in plastic bag to start)

(Wakeford, 2006)
A Final Thought....

As the natural developmental association between sensory input and psychic experience becomes better understood, the two forms of therapy may profit from joining forces. What is rocking and being cuddled other than tactile and vestibular stimulation plus an interpersonal relationship? Are not the neural traces for the sensory and the social aspects of experience laid down as one in the brain? Are not many of the child’s important emotional experiences in the first five years of life closely associated on an experiential and therefore neurological basis with their sensorimotor equivalents?

(Ayres, 1972, p.266)
References

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Further Research and Literature

For an extensive list of current research into Self-Regulation Strategies, please refer to the photocopied handouts at this presentation.

Please find this information at the following site:

FOR EMOTIONAL AND PHYSICAL GROWTH

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