Putting the “FUN”ction Back into a Sensory Smart Classroom

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A Functional Classroom Starts with Self Regulation

What is Self Regulation?

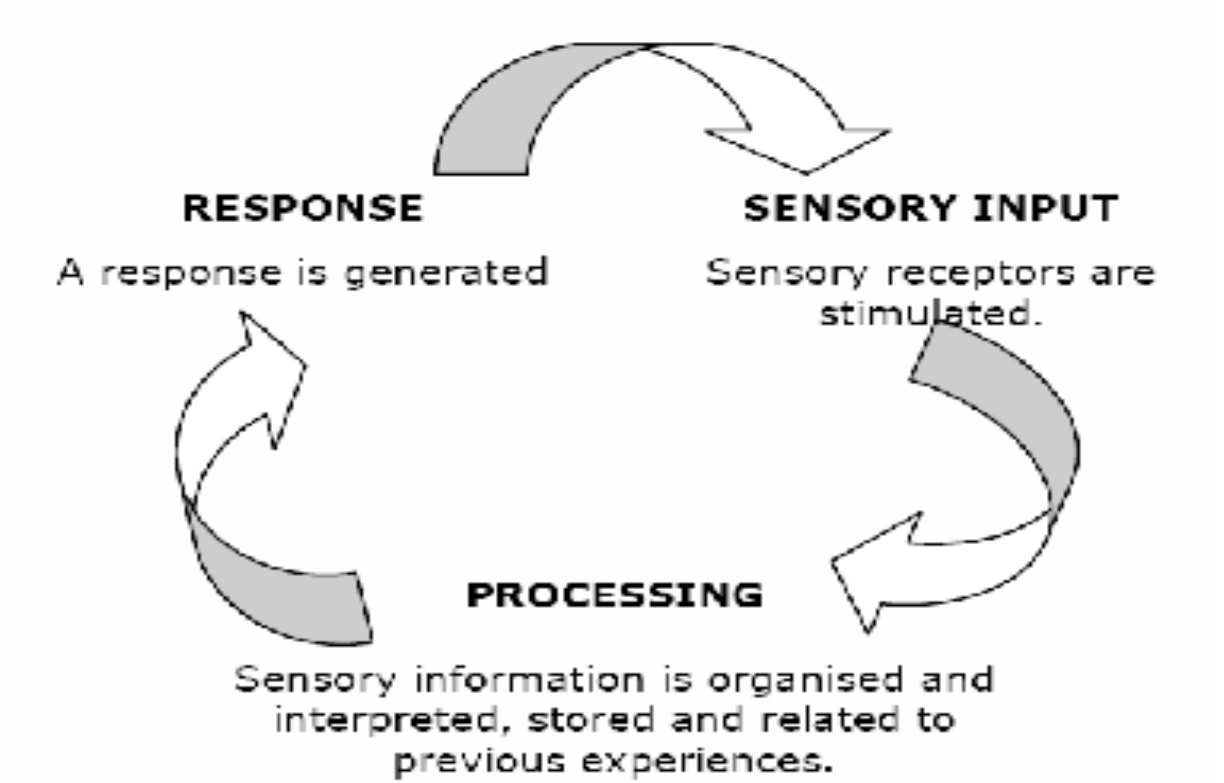
- Having the ability to adjust, maintain and sustain energy level , emotions, behaviors and attention span during appropriate time, place and settings. (Naptime, lunch, circle time, outside play.)

Three components to Self Regulation

- Sensory Regulation
- Emotional Regulation
- Cognitive Regulation

Sensory Regulation

The ability for the brain to respond to the environmental sensory stimuli and the internal stimuli present and continue to maintain appropriate level of arousal.



Sensory System

The Sensory System is made up of a total of eight different systems.

1. Proprioception
2. Vestibular
3. Tactile
4. Visual
5. Auditory (sound)
6. Olfactory (smell)
7. Gustatory (taste)
8. Interoception

Proprioceptive System

- Proprioceptive sense refers to the sensory input and feedback that tells us about movement and body position.
- It's "receptors" are located within our muscles, joints, ligaments, tendons, and connective tissues.
- It tells us where are body is in space and how much force is needed to carry out an activity.
- Proprioceptive System is also responsible for motor planning.
- Motor planning the ability to coordinate, plan and carry out an activity.

Proprioception
Cheat Sheet

Proprioceptive Avoiding Behaviors	Proprioceptive Seeking Behaviors

Proprioceptive Avoiding Behaviors

* Appears Lazy or Lethargic
* Avoids Active Activities (Running, Jumping, Climbing)
* Can Be a Picky Eater
*Prefers to sit still
*Avoids touch from others
* Seems Uncooridinated
* Needs to Look to do Familiar Activities
*Difficulting Using Stairs

Proprioceptive Seeking Behaviors

* Runs Into Objects, Walls, or People
*Uses Extreme Force
* Stomps, Walks Loudly
*Poor Body Awareness
*Kicks, Bites, and Hits
* Poor Personal Space
* Prefers Tight Clothing
* Chews Clothing, Pencils, Fingers

Proprioceptive Activities

* Bear Hugs
* Massages
* Animal Walks
* Carrying/Lifting Boxes
* Trampoline
* Wall Pushups
* Yoga Stretches
* Playdough Kneeding

*All information is strictly a suggestion and should be used as a resource. Please consult with a certified OT before starting any sensory diet.

Vestibular System

- The vestibular system detects movement and gravitational pull, and it provides information regarding the position of our head in space and acceleration and deceleration of movement.
- It is the first sensory system to fully develop in utero and is located in the inner ear. The vestibular system has strong neurological connections in the brain and is a major organizer of varied sensory input.
- This system is considered the most influential sensory system and has tremendous impact on one’s ability to function daily. Directly or indirectly, the vestibular system influences nearly everything we do.

Vestibular
Cheat Sheet

Created By: Lauren Lane, Occupational Therapist

Vestibular Avoiding Behaviors

* Scared of Movement Activities

* Fearful around playground equipment such as stairs, swings, merry go rounds, etc

*Fearful of elevators

*Dislikes being turned upside down or picked up

*Can appear clumsy or Uncoordinated

*Can appear stubborn

* Avoids stairs or holds on tightly with both hands or the railing

Vestibular Seeking Behaviors

* Unable to sit still

* Needs to be in constant motion (fidget, rocking, swaying, spinning)

*Level 10 on most movement activities

*Can be very impulsive

*Can't get enough movement

*Runs everywhere, instead of walks

* Takes unsafe risks both inside and outside

* Prefers to be upside down or hang off a couch or chair

Vestibular Activities

* Swinging

* Riding on Trikes and Bikes

* Jumping on Trampolines

*Games like Freeze Dance

* Spinning

* Hanging Upside Down

Tactile System

- The tactile system, or sense of touch, refers to the information we receive though the receptors in our skin.
- It alerts us to pain and temperature and helps us discriminate the properties of things we come in contact with, i.e. texture, shape, size, and weight.
- From very early on in development this sense plays a crucial role in helping us gain awareness of our own bodies and understand everything we come in contact with.

Tactile

Cheat Sheet

Tactile Avoiding Behaviors

* Avoids Certain Textures or Clothing
* Avoids or dislikes messy play
*Distressed by certain clothing such as tight pants, seams in socks, and new textures
*Extremely ticklish
*Dislikes geting face/hands washed
*Avoids hugs or physical contact
*Fearful of large crowds
*Anxious or overexcited over light touch
*Dilikes hair brushing, washing, or drying
*Picky ecter
*May only walk on toes
*May refuse to walk barefoot

Tactile Seeking Behaviors

* Prefers Tight Clothing
* Always seems dirty/ messy
* Not aware of being touched by others
* Hight pain tolerance
* Low impulse control- seems to touch everything
*Craves vibrations
* Hurtful to other children: hitting, pushing, pinching
*Constantly touching things around them
*Dilikes hair brushing, washing, or drying
*May crave certain strong flavors such as sweet, salty, etc
* Constantly mouths objects

Tactile Activities

* Sensory Bins filled with rice, flour, beans, etc

* Sensory Doughs such as playdough, cloud dough, moon sand, etc

*Finger Painting

* Tight Squeezes: Deep Pressure massage, hand squeezes, etc

* Squish Boxes: Surrounded by pillows

* Weighted Activities: vests, blankets, etc

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Visual System

- Responsible for seeing
- Types of visual information include: color, shape, orientation, and motion.

Visual

Cheat Sheet

Visual Avoiding Behaviors

*Covers eyes, squints, or screens out sights
* Avoids bright lights and sunlight
*Withdraws from participating in group movement
* Scared of moving objects
* Avoids direct eye contact
*Frequent headaches, dizziness, or nausea when using sight
*Unaware of contrasting colors/ tones
* Seems clumsy due to being unaware of objects in a path
* Unable to determine distance
*Rubs eyes

Visual Seeking Behaviors

*Stares at bright lights, flickers or direct sunlight
* Stares at moving objects
*Moves and shakes head during writing or fine motor activities
*Holds items close for inspection
* Seeems unaware of new people/items in an environment
* Has difficulty focusing on stationary objects
* Frequently loses the place on a page
* Seeks visual stimimuctions such as spinning, patterns, fans, and fences

Visual Activities

* Visual Schedules
* Reducing Clutter
* Give "Eye Breaks"
* Sensory Retreats
* Color Matching Games
* Guesstimation Jars
* Bean Bag Toss
* Flashlight Tag
* Light Table Activities
* Sensory Bottles
* Drawing, Painting, Gluing,
* Alphabet I-Spy
* Marble Mazes
* Labrynths

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Auditory System

- The auditory system is responsible for hearing.
- Specific sound frequencies
- Process changes in sound frequency or amplitude, combinations of sound frequencies.
- Auditory Processing is completely different than the Auditory System.
- Auditory System is simply hearing and Auditory Processing is the brain processing the information heard in order to carry out activities, answer questions, follow directions and so on.

Auditory
Cheat Sheet

Auditory Avoiding Behaviors

* Cries, screams, or becomes angry at sudden noises
* Has strong emotions when noise volume increases
* Covers ears or hides in social situations
* Avoids everyday noises such as toilet flushing or water flowing
* Bothered by high pitched noises such as whistles, chalk, and violins
* Distressed by metalic sounds such as silverware clinking or noises from a xylophone

Auditory Seeking Behaviors

* Prefers loud music
* Seems to always use an "outside voice"
* Puts musical instruments right next to the ears
* Makes loud noises in quiet settings
* Enjoys loud noises
* Craves comon noises such as an air conditioner, a fan, or water running
* Seems to be calmed by noises or certain music

Auditory Activities & Tools

* Play Matching Sound Games
* Connect Movement with Sounds
* Rhymes and Chants
* Headphones
* Calming Music
* Quiet room or space to retreat
* Sounds machines
* Musical Instruments
* Pre-recorded books
* Earplugs

Olfactory System

- Smell
- Discriminating among odors
- Enhancing detection of odors
- Filtering out many background odors
- Allowing higher brain areas related to arousal and attention to modify the detection and/or the discrimination of odors.

Olfactory
Cheat Sheet

Olfactory Avoiding Behaviors

* Avoids particular smells
* Become aggitated or frustrated around certain smells
* Tend to resort to "fight or flight" methods
* Gags with certain smells or foods
* Avoids familiar foods due to smells
* Foods don't taste appealing
* Tell other people they "stink"
* Avoids public places
* Does not like being hugged or close to other people

Olfactory Seeking Behaviors

* Smells objects that seem "odd"
* Enjoy strong scents
* Prefer foods with strong smells
* Can't avoid smelling things often
* Doesn't notice dangerous smells
* Prone to eating/drinking dangerous items due to the inability to smell "danger"
* Trouble identifying smells of foods
* Smells objects constantly
* Smells people constantly

Olfactory Activities

* Scented Playdough
* Scent Matching
* Guess That Scent
* Taste and Smell
* Berry Smoothies
* Scented Finger Painting
* Aromatherapy
* Scented Fidget Toys
* Lavender Scents
* Scented Rice Play
* Sweet/ Sour Sorting
* Blindfold Smells

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Gustatory System

- Taste
- It allows us to discriminate between safe and harmful foods.

Gustatory Input

and Sensory Processing Disorder

Gustatory Overresponsitivity

- Child avoids certain foods
- Gags on some foods or textures
- Child has a hard time trying new foods
- Avoids mushy or soft foods
- Child has poor dental hygiene and refuses to go to the dentist

Gustatory Underresponsitivity

- Child prefers hot and spicy foods
- Chews nails and/or hair
- Child may eat food that has gone bad
- Has oral fixation, often chews on everything
- Child may bite others

Gustatory Activities

- Add one food at a time to child's plate at dinnertime
- Suck on ice/popsicles
- Try simple foods like dried fruit.

- Blow bubbles
- Offer chew beads /chew toys
- Give child an edible necklace (Cheerios on string)

Interoception

- Interoception refers to sensations related to the physiological/ physical condition of the body.
- Interoceptors are internal sensors that provide a sense of what our internal organs are feeling.
- Examples: Hunger, thirst, sleepy, the need to urinate or have a bowel movement. Pain or illness.

Interoceptive Input

and Sensory Processing Disorder

Interoceptive Overresponsitivity

Child experiences pain in the body with stress and anxiety

Overly aware of digestive discomforts

Child frequently visits the nurses office complaining of discomfort

Often has pain, discomfort, headaches and muscle ache.

Interoceptive Underresponsitivity

Child has little awareness of their own body in space

Unaware of bowel discomforts and will often has accidents

Does not experience normal pain

Unaware of digestive discomforts such as hunger or nausea

Does not experience normal pain

Interoceptive Activities

Use hot water bottle for stomach aches

Warm bath

Use ice to treat bruises and scrapes

Eat soup and teas hot or cold

Asking if child needs to go to the bathroom

Watch for serious injuries as child may not feel the pain

Exercise and balancing

Breathing activities

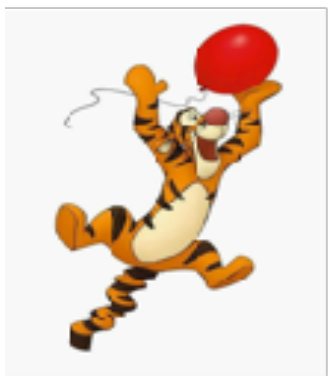
Sensory Regulation with Winnie the Pooh Characters

Too LOW

Poor posture, head down, lethargic, unengaged

Just Right

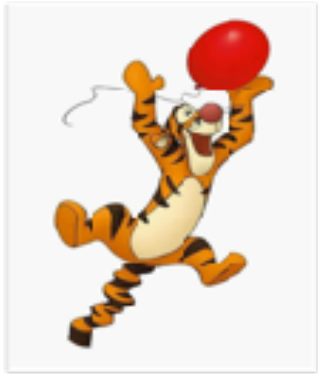
Focused, engaged in play, happy, able to follow directions and transitions.



Too High

Running, jumping, climbing, unable to set still in constant movement, chewing on objects, unable to keep hands to self

When I feel like Tigger

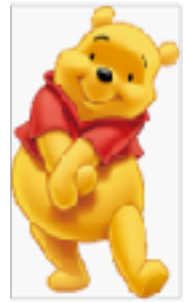


I Need

When I feel like Eeyore

I Need

When I am Just Right



I Can

Sensory Retreat

- Every classroom should have a sensory retreat or calm down corner.
- Everyone needs a break sometimes even preschoolers especially the kids who stay in Tigger mode (high arousal).
- Tent
- Bean Bag
- Weighted lap pad, blanket or stuffed animal
- Fidget
- Calm down bottle
- Favorite snack

Emotional Regulation

- Allows children to respond to social rules with a range of emotions through initiating, inhibiting, or modulating their behavior in a given situation to ensure social acceptance.
- Being able to share
- Engaging in turn taking

Emotional Regulation

Frustration Scale

	How do I feel?		What can I do?
5	angry mad frustrated		Take deep breaths 
4	disgusted irritated annoyed frustrated		Squeeze a pillow/ball  
3	scared nervous		Run outside 
2	sad tired		Relax on bean bag 
1	happy excited		

Cognitive Regulation

- The ability to problem solve during task and daily activities in order to demonstrate attention and ability to follow through with task and activity.
- All three components of Self Regulation, Sensory, Emotional and Cognitive are important but Sensory Regulation is a crucial aspect in which leads to the ability to achieve and maintain emotional and cognitive regulation therefore leading to overall Self Regulation.

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