Supporting Sensory Needs in the Classroom

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1. Science & Substance:
   What is Sensory Processing?
2. What is Sensory Modulation?
3. What can I do to help my students?
Human Nervous System
SENSORY SYSTEMS

Sensory Systems
1. Sight
2. Smell
3. Taste
4. Sound
5. Touch
6. Vestibular
7. Proprioceptive

A child’s ability to take in and use information through the senses and respond appropriately is known as sensory integration (Thompson & Raisor, 2013; Lynch & Simpson, 2004).
Sensory Modulation

“Sensory modulation is the ability to regulate and grade responses to the sensory environment so that responses to sensory input are appropriate to the demands of daily life”

Review of Old Models
Sensory Modulation

![Graph showing the relationship between performance and arousal](image)

- Strong arousal leads to optimal performance.
- Weak arousal results in low performance and interest.
- Optimal performance is achieved at moderate levels of arousal.
- High arousal can impair performance because of strong anxiety.
- Increasing attention and interest as arousal increases until it plateaus at optimal levels.
EXAMPLES OF ALERT LEVELS

Normal Day (Anne)

High

"Just Right"

Low

10:00 am Noon 3:00 5:30 10:00 pm

High (Paul)

Low (Carl)

Figure 1-5.
Miller’s Ecological Model of Sensory Modulation

External Dimensions
- Culture
- Environment
- Relationships
- Tasks

Internal Dimensions
- Sensory Processing
- Emotions
- Attention

The latest model for sensory modulation considers the WHOLE PERSON and the SYSTEM in which the person is operating.

For the BEST outcome in school, consider sensory processing as only one piece of a whole system: where are the challenges? Where can we intervene?
Sensory Overload
by admin on August 26, 2010
in Aspergers Living

So last night I had one of my worst sensory overload experiences of all time it started with me being told to kill myself by a troll on my blog, then members of Wrongplanet got all in a tizzy fit that I’m including wrongplanet.net in the possibility of getting 25% of the blogs revenue this month, and I’m still deciding if I should remove them from the range of possibilities. Then on top of that I got in a huge argument with a friend, got bad news and it just went into overload.

I could hear the neighbors even walking. A digital clock of mine was blinking and I could hear the blinking. Any source of light in my apartment gave me an instant headache, any noise i heard sounded like it was coming out of an annoying subwoofer in a crappy car that rust falls out of every time the subwoofer thumps. It was hell on earth, and all I could do was shut off everything that made light and noise and curl up in a ball and cry and it lasted for hours.
How can sensory strategies help my students be available for learning?
Sensible Strategy: Use both a Top down + Bottom Up Approach

Top down (behavior management):
- cognitive/behavioral approaches
- child actively works on self control
- child expresses needs constructively

Bottom up (sensory/environment):
- prepare the body (sensory)
- prepare the environment (sensory)
- child is passively supported

With maturity, we learn to manage ourselves using both approaches.
Sensible Strategy:
Use sensations to calm or alert

Calming
- low light
- Instrumental music
- Deep pressure touch
- Linear rocking
- Heavy work

Alerting
- bright light
- vocal music
- tickling/light touch
- movement
- heavy work
Most effective sensory inputs (long lasting effect on behavior)

- Vestibular – effect can last up to 48 hours (spinning, rocking, swinging)
- Heavy work/joint compressions/whole body actions – effect can last 2-3 hours
- Deep pressure – 1 ½ to 2 hours
Other helpful sensory inputs

• **Visual** strategies – change lighting, provide stimulating visuals – momentary effect.

• **Auditory** strategies – background music, decrease background noise – momentary effect.

• **Smell and taste** – effect varies. Oral input is usually very organizing (water bottle).

• **Fidgets** – momentary effect. May be helpful to redirect problem behavior.
• Cool-down spot for calming and regrouping
• Movement/heavy work breaks – carry heavy books, stack/unstack chairs, take a walk
• Deep pressure - Compression vests or hugs
• Social stories to teach and prepare for challenging situations
• Personal space – walk at the front or end of a line, sit at the end of a row
• Swinging, spinning and rocking in severe cases
**Sensible Strategy: Sensory Jar**

- Each child has a “jar” of available sensory points in a given day
- If the balance is low, alter your plans if possible
- Once the jar is empty, they’re done (done = meltdown, shutdown, ...)!
- **Plan ways to recharge before, during and after challenging events**
Sensible Activities to recharge a sensory jar

• Take a break in a quiet area
• Rocking and swinging (younger students)
• Deep touch pressure (hugs, squeezes)
• Heavy work (climb, run, carry heavy objects)
• Favorite or preferred activities
• Movement
Sensible Strategy: Address the Externals (refer to the Miller model)

• Change the task
• Change the environment
• Change the interpersonal interactions
• Change the culture
Sensible Strategy: Address the Internal Dimensions:
The Incredible 5-Point Scale
to teach self-regulation

Child learns to avoid 4 and 5.
Child implements strategies when 3 is reached.
Student learns to rate themselves on this scale to build self-awareness.
Stimming

• “stimming” is a repetitive, nonfunctional behavior with a sensory component to it: eg., fidgeting, flapping, etc.
• Stimming can give us a clue (sometimes) as to what helps this student calm down.
• Example: offer a water bottle or gum to the student who chews on pencils or fingers.
Any questions?
Make-and-Take!