



64<sup>TH</sup> CONFERENCE ON EXCEPTIONAL CHILDREN

## WORKING TOGETHER TO ACHIEVE STUDENT SUCCESS

### Sensory-Friendly Systems of Support: A Continuum of Collaboration for Student Success

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## OT Role in Addressing Sensory Needs in the Schools



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### Course focus on

- “...addressing the impact of sensory processing challenges on student participation.”

Rather than:

- “...treating and remediating sensory processing disorders.”

### WHY?



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### ...Our role and our process in schools is guided by:

- Occupational Therapy Practice Framework, 3<sup>rd</sup> Ed. (NEW!)
- IDEA 2004 and State Special Education Legislation
- Available Evidence
- Current Best Practice



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### Occupational Therapy Practice Framework: Domain and Process 3<sup>rd</sup> Ed. (2014)

- “Achieving health, well-being, and participation in life through engagement in occupation.”
- Clients include persons, groups, and populations (*think student, classroom, and system*)
- Consultation is infused throughout the Framework-3*



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### Framework defines OT as

- The therapeutic use of everyday life activities (occupations) with individuals or groups for the purpose of enhancing or enabling participation in roles, habits, and routines in home, school, workplace, community, and other settings.
- OT practitioners are concerned with the end result of participation and thus enable engagement through adaptations and modifications to the environment or objects within the environment when needed.

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## Role under IDEA 2004



- As a Related Service Provider, OT supports the education of children with disabilities.
- OT gets involved when the educational team determines OT is “required” for a student to access, participate and/or progress in his or her educational program.

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## Occupational performance is our goal

- Our goal is not to ‘**fix**’ *the child*.
- Our goal is to **facilitate student participation** in the academic/educational program and the life of the school = occupational performance.



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## LRE is not just about placement

- Services provided to the maximum extent possible with non-disabled peers
- ...in the manner that is least disruptive to the student’s educational experience
- Think inclusion, services in context
- Requires More Collaboration!

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## Best Practice

- ✓ Providing **contextual** services, including evaluations
  - Within student’s everyday activities and routines; within natural environment
- ✓ **Participation-based** evaluation, goals, and services
  - Consider PEO interactions; accommodations, strategies
  - Consider adapting activity/environment
- ✓ **Collaboration**
  - As effective as one-to-one services

*Handley-More, D., Wall, E., Orentlicher, M.L., & Hollenbeck, J. 2013*

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## Work in Context

- Evidence suggests that classroom-based services are at least as effective as pullout intervention and that intervention in classroom settings may facilitate generalization of new skills to other natural settings (Cirrin, et al. 2010).
- No significant differences between direct and consultative models of service delivery found (Davies & Gavin, 1994; Dreiling & Bundy, 2003).
- Contextual services are considered best practice in occupational therapy and special education.

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## Work Collaboratively

- Collaboration is strongly supported by evidence (Hanft & Swinth, 2011).
- Sayers (2008) and Hanft and Shepherd (2008) conducted a critical review of research articles and concluded that collaborative occupational therapy services were as effective as traditional 1:1 services. They also found added benefits to collaborative services including better carryover of interventions into the natural environment, shared responsibility for achieving student outcomes, improved understanding of the role of occupational therapy, and increased sharing of skills and resources among team members.
- Collaborative team practice is considered best practice in occupational therapy and special education (IDEA)

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**Top 10 assessment tools used frequently or occasionally (Bagatell, 2013)**

Assessment Tool	Percentage (n = 370)
Sensory Profile	79.7
VMI	72.4
BOT-2	52.2
PDMS-2	50
TVPS-3	44.3
MFVPT-3	40
DTVP-2	31.6
SFA	29.1
TVMS-3	28.3
HELP	25.9

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## The primary Frame of Reference used by school OTs is Sensory Integration

*regardless of the identified area of concern*

- Swinth, Schools Study, 2004

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So...

**Do we “do SI” in the schools?**

...and How?

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### Sensory Processing... in your school with your students...

1. What's going well for you?
2. What are your challenges? What would you like to improve in? What do you hope to change?

*(Do NOT fill out Next Steps/Action Plan)*

**DO SOMETHING NOW** 

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**What's going on in the field?**

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### The Controversy/Confusion

- Sensory Integrative Dysfunction
- Sensory Processing Disorders
- Ayres Sensory Integration®
- Sensory-Based Interventions
- Impact on Research – Treatment Fidelity

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## For more information...

- **State of Measurement in Occupational Therapy Using Sensory Integration.** Roseann C. Schaaf, Janice Posatery Burke, Ellen Cohn, Teresa A. May-Benson, Sarah A. Schoen, Susanne Smith Roley, Shelly J. Lane, L. Diane Parham, Zoe Mailloux; *Am J Occup Ther* 2014;68(5):e149-e153. doi: 10.5014/ajot.2014.012526.
- **Evolution of the Sensory Integration Frame of Reference.** Roseann C. Schaaf, Patricia L. Davies; *Am J Occup Ther* 2010;64(3):363-367. doi: 10.5014/ajot.2010.090000.
- **Concept Evolution in Sensory Integration: A Proposed Nosology for Diagnosis.** Lucy Jane Miller, Marie E. Anzalone, Shelly J. Lane, Sharon A. Cermak, Elizabeth T. Osten; *Am J Occup Ther* 2007;61(2):135-140. doi: 10.5014/ajot.61.2.135.
- **Frequently Asked Questions about Ayres Sensory Integration, AOTA**

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## Overview of Sensory Processing & Sensory Processing Disorder

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## Sensory Integration (SI) is

- a neurological process that refers to the integration and interpretation of sensory input for use,
- part of normal development, and
- an evolving theory and frame of reference.
- *Sensory Integration and Sensory Processing are often used interchangeably.*

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## Thresholds

- For each of our senses there is a wide range of tolerance that varies from person to person
- We all have our individual sensory preferences and these preferences normally change throughout the day
- Range of 'normal' responses to sensory input



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## How do you handle sensory input?

- What are your preferences?
- What are your intolerances?
- To what degree do these impact how you live your life?
- How do you compensate when you encounter an intolerance?

**DO SOMETHING NOW**

*Think about sights, sounds, smells, tastes, touch, movement*

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*Sensory Processing Disorder (SPD)* is a condition that exists when sensory signals don't get organized into appropriate responses.

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- A. Jean Ayres, PhD, likened SPD to a neurological "traffic jam" that prevents certain parts of the brain from receiving the information needed to interpret sensory information correctly.

[www.SPDFoundation.net](http://www.SPDFoundation.net)

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### Impact of Sensory Challenges

Observable behaviors may include:

- Being over-responsive or sensory avoiding
- Being under-responsive or sensory seeking
- Unusually high or low activity level
- Poor attention span, difficulty focusing on tasks
- Delays in learning and/or self help skills
- Difficulty organizing and regulating behavior
- Poor self-esteem

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### Sensory Processing Disorders are known to be associated with

- ASD – Autism Spectrum Disorders
- LD – Learning Disabilities
- NVLD – Non-Verbal Learning Disabilities
- DD – Developmental Delay
- ADHD – Attention Deficit Hyperactivity Disorder
- DCD – Developmental Coordination Disorder

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### Symptoms

- Broad spectrum of symptoms and severity
- Most of us have occasional difficulty processing sensory input
- In children with SPD these difficulties are **chronic and they disrupt everyday life.**
- Often misinterpreted – behavior problems, lazy, disinterested, clumsy, non-compliant

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### SPD, Stress and Coping

- Having SPD is like living in a state of constant stress, with the world perceived as an unpredictable, frustrating and dangerous place.
- May see highly distractible, hyper-vigilant, anxious, irritable

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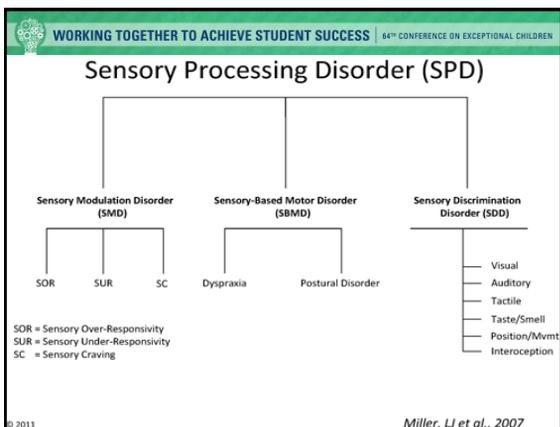
## SPD can lead to other problems

- External inputs may be overwhelming causing child to *withdraw* from others and have *difficulty interacting* with peers resulting in *social isolation* which could lead to *depression* and *low self-esteem*.
- May find school to be *overwhelming*, impacting *learning*; may interfere with *academic achievement* over time.
- Avoidance of movement* activities may adversely affect child's *physical development*.

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## Sensory Processing Disorder

### TYPES of

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## Sensory Modulation Disorder (SMD)



- Ineffective use of sensory information to regulate arousal, affect, and behavior (self regulation).
- Inability to maintain an optimal level of arousal /affect/activity appropriate for the situation (sensory based)
- Shifts throughout day or by activity

- Sensory Over-Responsivity
- Sensory Under-Responsivity
- Sensory Seeking/Craving

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## SMD: Sensory Over-Responsivity



- Aversive response or avoidance
- Sensory experiences may lead to fight/flight
- Startle to unexpected sensory experiences
- Atypical reactions to sensory experiences
- May have high activity level
- May be hyper vigilant
- Difficulty screening out background sensory input

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## General Principle of Intervention

- If those involved understand the purpose of the intervention strategies they are better equipped to problem solve in the moment.
- Teach teacher, student, parents principles of sensory intervention strategies rather than simply prescribing a sensory diet.

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### Principles of Intervention for Sensory Over-responsivity

- Normalize the child's arousal, slow, calming activities
- Teach child how to prevent self from going into a state of overarousal
- Heavy Work activities helps to calm overarousal, e.g. chewy foods, lifting weights, pushing/pulling furniture, chair or wall push-ups
- Predictability – to stay regulated and in control, e.g., visual schedules, mini-schedules for steps of morning arrival, lunchtime

*Bailey & Miller, 2011, No Longer a Secret*

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### Principles of Intervention for Sensory Over-responsivity

- Warnings and preparation for transitions and changes in schedule.
- Stay Calm!
- Avoid overstimulating situations but provide incremental exposure to learn to cope with sensations they will encounter in school and in life.

*Bailey & Miller, 2011, No Longer a Secret*

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### Principles of Intervention for Sensory Over-responsivity

- Have sensory tools easily available and teach child to use them without your direction
  - Weighted or pressure items just prior to or during event
  - Sensory items to hold and manipulate – familiar, soft, squishy and smooth items
  - Practice deep breathing exercises
  - Provide a safe, small, predictable environment to go when feeling stressed or when anticipating a sensory meltdown – quiet area in classroom with sensory items such as fidget tools, weights, theraband, earphones

*Bailey & Miller, 2011, No Longer a Secret*

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### Josh, 6<sup>th</sup> Grade, Sensory Over-Responsivity

- Over-reacts when kids bump him while traveling between classes (strikes out, becomes visibly agitated/upset)
- Startles loudly in class when someone walks by his desk unexpectedly (is embarrassed when this happens)
- Doesn't participate in PE and recess to protect from unexpected touch



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### You may know more than you think you do!

Student Example: Josh

Collaborate/brainstorm to identify as many strategies as you can for each problem:

- What would you do?
- What strategy(ies) might you try?

**DO SOMETHING NOW** 

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### SMD: Sensory Under-Responsivity

- Decreased awareness of sensory experiences
- May be low arousal and/or low affect
- Inadequate attention for the task
- May have unusually high or low activity level
- Difficulty getting organized to begin tasks



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### Principles of Intervention for Sensory Under-responsivity

- Require larger quantities of stimulation, a longer duration, and/or a greater intensity to be able to perceive the input.
- Goal is to help child to be more engaged and productive by providing intensive input in each sensory domain that is affected by sensory under-responsivity.
- And to increase awareness of environment

*Bailey & Miller, 2011, No Longer a Secret*

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### Principles of Intervention for Sensory Under-responsivity

- Use alerting, fast, or intense sensory input to generate arousal
- Use taste and smell to increase arousal - menthol, eucalyptus, pine, can increase alertness; spicy, sour, and bitter foods can increase alertness.
- Use activities that are motivating, design activities that incorporate personal interests, popping bubble wrap, doing Focus Moves from S'Cool Moves for Learning

*Bailey & Miller, 2011, No Longer a Secret*

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### Principles of Intervention for Sensory Under-responsivity

- Use light and color to enhance attention
- Use alerting sensory input, non-rhythmical, irregular, and unpredictable, geared toward waking up the body and brain
- Provide tactile, vestibular and proprioceptive blasts of activity prior to tasks that require sustained arousal and focus.

*Bailey & Miller, 2011, No Longer a Secret*

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### Jamal, 9th Grade, Sensory Under-Responsivity

- Struggles to pay attention to teacher lecture in class so that notes are incomplete
- Trouble getting started on tasks, poor ability to organize materials, and low affect make Jamal an undesirable partner in Science lab
- Homework is rarely completed and even more rarely handed in



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### You may know more than you think you do!

Student Example: Jamal

Collaborate/brainstorm to identify as many strategies as you can for each problem:

- What would you do?
- What strategy(ies) might you try?

DO SOMETHING NOW 

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### SMD: Sensory seeking/craving

- Actively seek out sensory experiences, most often vestibular and proprioceptive
- May see mouthing or touching materials rather than engagement in productive activity
- Display extreme overarousal with constant movement
- Touching everything
- In your face and in your space
- Tend to be thrill seekers
- Safety may be a concern



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### Principles of Intervention for Sensory Seeking/Craving

- Create organized movement experiences that are goal-directed and purposeful.
- Use intermittent, varying, or interrupted vestibular input – movement that stops and starts and involved changes in head position, e.g., Duck-Duck-Goose, Musical Chairs, Red Light/Green Light.
- Use purposeful tasks with heavy work components, e.g., washing the white board or desks, isometrics, weight lifting

*Bailey & Miller, 2011, No Longer a Secret*

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### Principles of Intervention for Sensory Seeking/Craving

- Use environmental modifications when socializing with peers – to differentiate personal space boundaries
- Use enclosed or small spaces to control activity (large open spaces are trouble for sensory seekers and highly disorganizing)
- Fidget tools that are common items with limited sensory properties so the child can attend without becoming distracted, e.g. pen caps, paper clips, erasers

*Bailey & Miller, 2011, No Longer a Secret*

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### Micah, Kindergarten Sensory Seeking



- Can't sit still for morning meeting, rolls on top of other kids, disrupts the activities
- Chews intensely on pencils, crayons and other objects in the classroom
- Unsafe at recess because he is moving so quickly, running, and crashing without regard or awareness of potential for harm

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### You know what to do!

Student Example: Micah

Collaborate/brainstorm to identify as many strategies as you can for each problem:

- What would you do?
- What strategy(ies) might you try?

**DO SOMETHING NOW** 

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### Sensory-based Motor Disorder (SBMD)

- Dyspraxia
- Postural Disorder

*Difficulties stabilizing, moving, or performing movement sequences*

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### SBMD: Dyspraxia

- Difficulty translating sensory information into physical movement, unfamiliar or complex movements
- Can be gross motor, fine motor, or oral motor planning problems, or any combination
- Clumsy, accident-prone
- Disheveled appearance
- Limited ideas for action
- Difficulty generalizing tasks when any variables are different
- May have low frustration tolerance and low self esteem

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### Principles of Intervention for Dyspraxia

- Work to boost child's self-esteem – provide success experiences that help the child to feel better about himself
- Sensory feedback enhances motor performance, resistance and deep pressure can help enhance proprioception, visual cues can also help
- Provide opportunities to teach actions e.g. learn to use scissors before having to do cutting activity in class
- Provide models for action
- Break down tasks into smaller steps

*Bailer & Miller, 2011, No Longer a Secret*

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### Principles of Intervention for Dyspraxia

- Verbalize and pre-plan the timing and sequencing of steps an activity
- Teach the goal of the activity
- Practice mapping where you are and where you are going
- Practice ideation – what can we make with this box of popsicle sticks?

*Bailer & Miller, 2011, No Longer a Secret*

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### Shanika, Grade 5 Dyspraxic



- Frequently stumbles and falls causing great embarrassment
- Low self-esteem, tends to stay on the outskirts of activities
- Struggles greatly in PE class with motor skills and others don't want her on their side/team
- Appears disheveled, stands out from other girls in her class who do not want to socialize with Shanika because she is different.

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### You know strategies!

Student Example: Shanika

Collaborate/brainstorm to identify as many strategies as you can for each problem:

- What would you do?
- What strategy(ies) might you try?

**DO SOMETHING NOW** 

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### SBMD: Postural Disorder

- Difficulty maintaining control of body to meet demands of motor tasks
- Low muscle tone and decreased vestibular and proprioceptive sense
- Difficulty maintaining posture for tasks like writing
- Poor writing – can't plan where to put the letters on the page, size and space issues
- Difficulty using both hands together – may be supporting body with one hand
- Poor balance, falls over easily
- Poor endurance, tires easily

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### Principles of Intervention for Postural Disorder

- Scaffold activities so that child is able to try and succeed; provide just enough help to succeed.
- Strengthen core muscles to increase balance, improve posture and help with motor control
- Provide movement activities to prepare for sedentary activities to activate postural muscles
- Use weight bearing and resistive activities
- Provide external supports
- Larger, heavier tools

*Bailer & Miller, 2011, No Longer a Secret*

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### Cayla, Grade 2 Postural Disorder



- Struggles to stay upright in seat making table top activities difficult
- Has trouble getting letters between the lines and spacing between words and letters is so inconsistent that the teacher can't always tell where words begin and end
- Behavioral problem toward end of the day, refuses to participate in desk work because she is so posturally fatigued

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### You know strategies!

Student Example: Cayla

Collaborate/brainstorm to identify as many strategies as you can for each problem:

- What would you do?
- What strategy(ies) might you try?

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### Sensory Discrimination Disorder (SDD)

- The ability to interpret and distinguish messages within sensory systems.
- Often need extra time to process sensory information because they have trouble figuring out what they are perceiving as quickly as other children do
- This slowness may cause others to think that the child is cognitively delayed when they are not
- Can result in self-esteem issues



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### Meet Samuel



- Samuel has Sensory Discrimination Disorder (SDD)
- 5<sup>th</sup> Grade
- IEP with special education for reading and OT and PT
- Difficulty understanding and interpreting visual, tactile, proprioceptive and vestibular sensory input
- Is always behind –last to start/finish, last to be picked
- Steady decline of self-esteem with each passing school year.



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### Samuel



- Difficulty telling what is in his hands without looking, fine motor clumsiness, poor bilateral skill and tool use (**proprioception and vestibular**)
- Difficulty performing tasks such as tying, zipping and writing without visually monitoring his fingers (**touch and proprioception**)
- Difficulty visually distinguishing between similar words, letters and symbols, difficulty locating objects in a visually cluttered background (**visual**)
- Poor spatial map, gets lost easily (**visual**)
- Difficulty making sense of what is heard resulting in difficulty attending to and following verbal directions. (**auditory**)
- Decreased body awareness, clumsy on motor tasks, falls frequently (**proprioception and vestibular**)
- Unusual force on objects and with others, ex. throwing a ball too hard (**proprioception**)



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### Principles of Intervention for Sensory Discrimination Disorder

- Enhance sensory features to increase awareness
- Assist children in being aware of properties of people, objects, and other things
- Infuse descriptions of sensorimotor play into activities, make note of as many descriptive aspects as possible.
- Enhance the salient features of a task, object or environment
- Provide landmarks for spatial orientation

*Bailer & Miller, 2011, No Longer a Secret*

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## Samuel

- More to come!

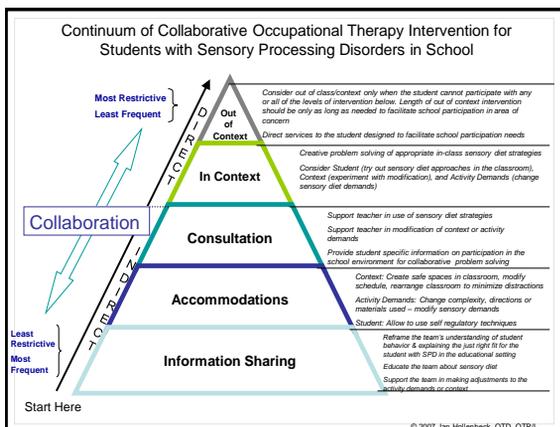
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## Model of Continuum of Collaborative Intervention

- *evaluation focused on participation*
- *individual student supports & services*
- *sensory-friendly classrooms*
- *systems level supports*
- *Massachusetts examples*

The HOW



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## Continuum of Collaborative Interventions Model

- Aligns with OT Framework 3 and IDEA 2004
- Empowers team decision making for accountability
- Increases student participation
- Considers LRE/Inclusion
- All involved may be 'clients'
- Interventions may occur at level of:
  - Student
  - Activity
  - Environment

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## Systems Level Support

- Working at a building or district level to meet the needs of all students, not just students with disabilities.
  - Playground redesign
  - Recess club
  - School-wide approached to address sensory needs
  - Positive Behavioral Supports/SEL
  - Sensory-based strategies for stress management for staff and students

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## Information Sharing

- Educate the team about sensory diet
- Teach about sensory integration/processing and impact on learning and participation
- Reframe a student behavior with a sensory lens
- Provide in-service training for teachers on strategies for classroom management and self regulation
- Information sheets for teachers
- Sensory corner in school newsletter
- Parent workshop on sensory integration and self-regulation and provide strategies for homework completion

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## Accommodations

- Skills in Activity Analysis help determine best fit for accommodations
  - Dynamic seating
  - Sensory Tools
  - Assistive Technology Supports
- Context: Create safe spaces in classroom, modify schedule, rearrange classroom to minimize distractions
- Activity Demands: Change complexity, direction or materials used – modify sensory demands
- Student: Allow to use self-regulatory techniques

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## Consultation... What's your model?

<u>Expert Model</u> "I'm the expert" "I know best" "I have the answers" "I will tell you what to do"	<u>Collaborative Model</u> "We equally share responsibility" "We bring different expertise to the table" "Together we can figure out what to do"
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## Collaborative Consultation

- Collaborate with teacher to identify and prioritize participation-based problems
- Support teacher in use of strategies (may include procurement and demonstration of use of materials)
- Collaborate with teacher/team to problem solve ways to support student participation/learning
- Brainstorm with teacher to identify sensory diet strategies to trial in the classroom
- Support teacher in modification of context or activity to accommodate individual student sensory needs

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## Direct Services: In Context

- Creative in-the-moment problem solving, trial, modeling of appropriate in-context sensory diet strategies
- Eliminates transfer, generalization of skills
- Explore multiple contexts: Address participation-based needs in the classroom, on the playground, in the hallway, at lunch, in the bathroom, during PE, on the bus...

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## Direct Services: Out of Context

- Duration of out of context intervention should be only as long as needed to facilitate school participation in area of concern
- Direct service should be related to some change in participation - be sure skill transferred into classroom or other school context

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## Early Intervening & RtI

- Students with sensory needs can be addressed in the general education setting via strategies and accommodations employed through observation, collaborative consultation with the teacher, and measuring effectiveness.

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Data: At the Early Intervening/Instructional Support Stage

Strategy	Check if Tried	Effective? Yes/No	Comments
Seat Cushion	✓	no	Seemed to reduce attention
Theraband at desk	✓	yes	More attentive, able to stay in seat longer
Movement prior to desk work	✓	no	Seemed to increase activity level, difficulty settling after movement

*Trial of each strategy should be done at least twice a day for a minimum of one week before commenting on effectiveness.*

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### Evaluation

- Difficulty with school participation is the entry point.
- Contact parent prior to evaluation – starts your rapport, ask their concerns, explain role in school, etc.
- Identify specific school participation strengths and difficulties
- If sensory processing is suspected, evaluate to determine if sensory processing is interfering with participation

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### Evaluation

- Evaluate through observation of the child in natural contexts, teacher and caregiver interviews, structured clinical observations and standardized testing to determine the specific ways in which disordered use of sensation is interfering w/ functional performance.
- Check responses to each type of sensory input
- Consider environmental factors

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### Evaluation

- Try strategies and see if they work
- Distinguishing from behavior, ADHD and other disorders can be difficult.
- SPD is not an eligible disability category
- If not eligible use evaluation process to provide information to the team
- If eligible typically means that another disability category has been identified

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“Evaluation is a multifaceted and complex process that includes evaluation of the student’s abilities, curricular demands, contextual and environmental factors, teacher expectations and the interaction of all of these.”

~Barbara Chandler, 2007

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### Evaluation Considerations

- Individualized, based on reason for referral
- Focus on Participation
- MUST look at the student in context - Contextual Observations – multiple contexts
  - Arrival/dismissal
  - Primary classroom
  - Recess/playground
  - Art, music
  - PE
  - Hallways/stairs
  - Cafeteria
  - Library
  - Auditorium, stage
  - Science labs
  - Bleachers, fields, locker rooms
  - Work & community sites

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## Evaluation Considerations

- Look at participation-based strengths and needs
- Try out accommodations/strategies during evaluation process as possible\*  
*...\*do you do this now?*

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## Identifying Evaluation Tools & Methods

Think about tools and methods at the level of:

1. Participation
2. Activity
3. Underlying sensory processing

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## Tools

Participation Level

- SFA
- Sensory Profile
- Sensory Processing Measure

Activity Level

- M-FUN
- GOAL

*What else???*

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## Outside Evaluators & Service Providers

- Communicate/Collaborate
- Make sure your evaluation is educationally-based
- Be confident in your role to enable participation rather than to remediate underlying SPD



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## Outside Evaluators & Service Providers

- Ensure goals are addressing school participation rather than underlying sensory processing problems
- If stuck try strategies/services they want but identify participation-based goals and take data for a specified period of time. Then can try strategy that you think will help for a specified period of time...may use other approached
- SPM School and Home forms, compare, acknowledge, provide suggestions for home

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## Addressing the impact of sensory processing challenges on student participation

Individual Student Supports & Services

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## There is NO 'One Size Fits All'

- Each student/situation is individual
- All factors\* need to be considered within the student, teacher, peers, environment, context (e.g., time of day, cognitive load, what happened prior) in order to effectively support the student/teacher

*\*what did you want to know about cases?*

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## Collaboration is Key!

In order to do this must collaborate with classroom staff, student, other team members to ensure that you are identifying actually occupational performance/ participation problems relative to the educational program and so that you can address the right thing at the right time.

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## Collaborate to...

- Identify problem & desired behavior
  - What is the behavior you want to see?
  - What do you want the student to do?
- Collaborate to determine a strategy to try
- Collect data to see if the strategy works

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*Strategies are developed so that the student is able to effectively participate in the natural routines & activities of the school day.*

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## Goal Focus is on Participation

...in circle time, completing classroom assignments, in PE class, in the cafeteria...  
rather than on improving sensory processing



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## What can we do?

- Reframe our understanding of sensory-based behavior.
- Provide children with appropriate sensory experiences to promote self regulation, development, and learning.
- Adapt the routine, environment and activities to change the sensory demands and alter sensory-based triggers to behavior.

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## Sensory Diet

- Purpose: to help the individual feel calm, alert, and organized by providing specific sensory activities scheduled throughout the day.
- Each of us requires a certain amount, frequency and type of activity/sensory input to feel our best and to sustain an optimal level of alertness for the task/situation at hand.
- Activities provide certain types of sensory input which can have an alerting or arousing effect on the nervous system or, an inhibitory or calming effect on the nervous system.
- A sensory diet involves the provision of specific activities, on a regular basis, designed to promote an optimal level of arousal and organization to approach each task or demand.
- Specific sensory activities may also be incorporated before and after disruptive or stressful events, such as transitions, to assist the individual in sustaining a calm and organized state.

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## Sensory Diet

- Individualized based on student need
- What do you need to know to develop a sensory diet?
- Be realistic
- Develop in conjunction with the teacher (and child)
- Look at the times of difficulty
- Look at the routines of the day
- Look at what is feasible

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## Sensory-based Intervention

- Sensory diet
- Incorporate into the school day
- Adding sensory input on a regular basis
- Objects to help with need for oral input
- Heavy work to calm and regulate attention and to increase body awareness
- Environmental modifications

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## Involve the Student!

- Importance of working toward student self awareness/advocacy – teach/empower student to understand and manage sensory challenges.

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## Address the right thing at the right time

- Prioritize to address the most interfering problems first.
- Consider what will have the greatest impact on the student and the teacher.
- Collaborate to determine the strategy most likely to meet the individual student's needs.
- Select strategies based on the individualized needs of the student.
- Try the easiest/simplest thing first.
- Do everything you can to help the student now.

Rules to live by

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## Address the right thing at the right time

- Try 1 or 2 things at a time, measure effectiveness and modify, change or add.
- Develop progress monitoring methods before implementing strategies.

Rules to live by

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**Becka will maintain personal space at circle time...**  
 (maintain personal space is defined as staying in designated spot on rug, keeping hands, feet and body off of other students)

Date	Strategy	# of times out of space (but not touching others)	# times touching others	Total
5/2/12	Baseline	6	4	10
5/3/12	Baseline	4	5	9
5/4/12	Baseline	8	3	11
5/5/12	Baseline	7	5	12
5/8/12	Baseline	6	7	13
5/9/12	Baseline	5	4	9

Becka Example – Poor postural control

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**Becka will maintain personal space at circle time...**  
 (maintain personal space is defined as staying in designated spot on rug, keeping hands, feet and body off of other students)

Date	Strategy	# of times out of space (but not touching others)	# times touching others	Total
5/10/12	Stadium Seat	3	2	5
5/11/12	Stadium Seat	3	0	3
5/12/12	Stadium Seat	2	2	4
5/15/12	Stadium Seat	0	2	2
5/16/12	Stadium Seat	1	1	2
5/17/12	Stadium Seat	2	2	4

Becka Example – Poor postural control

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**Becka will maintain personal space at circle time...**  
 (maintain personal space is defined as staying in designated spot on rug, keeping hands, feet and body off of other students)

Date	Strategy	# of times out of space (but not touching others)	# times touching others	Total
5/18/12	Sit with back to corner	4	5	9
5/19/12	Sit with back to corner	3	3	6
5/20/12	Sit with back to corner	5	3	8
5/21/12	Sit with back to corner	5	2	7
5/22/12	Sit with back to corner	4	4	8
5/23/12	Sit with back to corner	3	4	7

Becka Example – Poor postural control

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O = baseline    S = stadium seat    X = Corner Sit

Becka Example – Poor postural control

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**Strategies may be implemented at the student, activity and/or environment level.**

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**Student level (change the student)**

- Change the student's alertness or skill level
- Use of a weighted vest to provide deep pressure
- Use of heavy work activities prior to more sedentary desk top tasks
- Educate parent on sensory defensiveness and appropriate clothing so that the student is better able to focus on classroom activities rather than their irritating clothing.

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### Activity level (change the task or materials)

- Change the features of an activity that influence the type and amount of effort required to perform the activity
- Reduce or simplify the steps of an activity (e.g. pre-cut shapes)
- Change the tools needed for an activity (e.g. loop scissors)
- Change the sensory demands of an activity (e.g. glue stick)

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### Environmental level (change the context or environment)

- Change aspects of the environment that may be interfering with a student's ability to participate
- Change the physical set up of the classroom (e.g. desk location)
- Change visual aspects of the environment (e.g. Lighting)
- Reduce distractions
- Change classroom schedule
- Provide alternatives for overwhelming environments

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### Activity

- Using previous cases, label each brainstormed strategy 'student', 'activity', or 'environment'

**DO SOMETHING NOW** 

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### Meet Samuel

- Samuel has Sensory Discrimination Disorder (SDD)
- 5<sup>th</sup> Grade
- IEP with special education for reading and OT and PT
- Difficulty understanding and interpreting visual, tactile, proprioceptive and vestibular sensory input
- Is always behind –last to start/finish, last to be picked
- Steady decline of self-esteem with each passing school year.

↑ PASS

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### Samuel



- Difficulty telling what is in his hands without looking, fine motor clumsiness, poor bilateral skill and tool use (**proprioception and vestibular**)
- Difficulty performing tasks such as tying, zipping and writing without visually monitoring his fingers (**touch and proprioception**)
- Difficulty visually distinguishing between similar words, letters and symbols, difficulty locating objects in a visually cluttered background (**visual**)
- Poor spatial map, gets lost easily (**visual**)
- Difficulty making sense of what is heard resulting in difficulty attending to and following verbal directions. (**auditory**)
- Decreased body awareness, clumsy on motor tasks, falls frequently (**proprioception and vestibular**)
- Unusual force on objects and with others, ex. throwing a ball too hard (**proprioception**)

↑ PASS

### Computer Class

<b>Setting</b>	Computer Lab
<b>Problem</b>	Late for class – gets lost, misses directions, behind on LT assignments, slow keyboarding
<b>Goal</b>	Find way to class, arrive on time, get/ follow directions, improve keyboarding speed
<b>Strategy</b>	Teach route to class/landmarks, provide written directions, group work, keyboarding accommodations & practice, word prediction & talking word processing to increase output
<b>Type</b>	Student, activity, environment
<b>Involving</b>	Student, computer teacher, OT, parent, classroom teacher, reading teacher
<b>Data</b>	On time arrival, improved keyboarding speed, completion of projects



### It Takes A Village

Collaborators:	Role
Computer teacher	Group projects; written directions; keyboarding accommodations
Samuel	Learn to use word prediction and talking word processing, practice keyboarding; learn & practice route to class
Reading teacher	Walk with then shadow Samuel to computer class until independent
OT	Teach word prediction & talking word processing; teach route to computer class with landmarks; work with parent to set up and monitor home keyboarding practice – make data sheet to document
Parent	Follow through on home keyboarding practice and data sheet
Classroom teacher	Awareness of interventions; incorporate use of computer programs into classroom, provide opportunities for keyboarding practice during down time

### Steps to travel to computer class independently and on time

Step	Setting
Identify/Set up landmarks for route to computer class	Consultation: One 30 minute period to set up route on behalf of the student (OT)
Teach route to class	Out of classroom: 2, 15-minute sessions for basic instruction, then transfer to reading teacher (OT)
Consult/Train reading teacher to walk with then shadow student and to take data	Consultation: One 20 minute period to explain program and data collection to reading teacher (OT & Reading Teacher)
Reading teacher walks for then shadows to class until independent	In class/context: 10, 5-minute periods for teacher to walk with/shadow student during regularly scheduled transition time to computer class (reading teacher)

### Steps to achieve participation in computer class

Step	Setting
Keyboarding accommodations	Consult: 15 minutes per month, for collaboration to develop, incorporate and modify accommodations to allow Samuel to keep up with class work. (OT & Computer Teacher)
Provide word prediction & talking word processing, instruct in use	Consult: 1, 30-minute session to install programs in computer room (OT, or OT & Tech Support) Out of class: 2, 30-minute sessions for basic instruction with student, parent and teachers, (OT, parents, teachers, student) In class: 30 minutes twice monthly for 3 months then 30 minutes monthly for the remainder of school year for guided practice in use of these programs during actual assignments within computer classroom (OT, student)
Practice word prediction & talking word processing	In class: Student uses programs in class for assigned work in order to practice (student)
Keyboarding practice	Consult: Set up data sheet, train parent and monitor home keyboarding practice (OT) At home: does not need to miss class time (student & parent)

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## Small Group Activity

- What is your intervention?
- What will you do, with whom and in what context in order to help Samuel achieve the desired participation-based outcome
- What would your services look like?

**DO SOMETHING NOW** 

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## What have we accomplished?

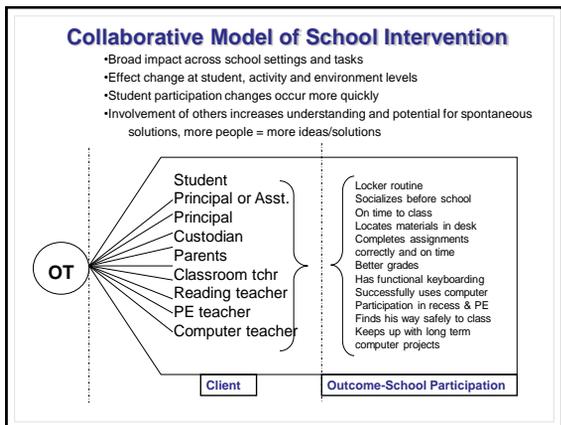
Have we impacted Samuel's school participation?

How?

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## Samuel now...

- Manages am locker routine successfully
- Socializes w/ peers before school
- Gets to homeroom safely on time
- Locates materials in his desk
- Working toward functional keyboarding skills
- Successfully uses computer for school work
- Shows greater participation in recess & PE activities
- Finds his way to computer class safely and on time
- Keeps up with long term computer projects
- Completes class assignments correctly and on time
- Gets better grades



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## Creating Sensory-Friendly Classrooms

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## Consider Qualities of Sensory Inputs

- Each sensory system has inputs and activities that are either calming or alerting
- Consider in relation to:
  - Individual student needs
  - Whole class needs

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## Visual Qualities

<p><b>Alerting</b></p> <ul style="list-style-type: none"> <li>• Bright lights</li> <li>• Blinking lights</li> <li>• Visually 'busy' environment</li> <li>• Bright colors</li> <li>• Red/yellow shades</li> </ul>	<p><b>Calming</b></p> <ul style="list-style-type: none"> <li>• Dim lights</li> <li>• Uncluttered environment</li> <li>• Blue/green shades</li> <li>• Dim lights for quiet time</li> <li>• Keep visual distractions to a minimum (art and 'stuff' on walls)</li> </ul>
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## Auditory Qualities

<p><b>Alerting</b></p> <ul style="list-style-type: none"> <li>• Loud noises</li> <li>• Unexpected noises</li> <li>• Background noise</li> <li>• Fast, high pitched music</li> <li>• [Music can be calming or alerting]</li> </ul>	<p><b>Calming</b></p> <ul style="list-style-type: none"> <li>• Predictable/expected</li> <li>• Familiar sounds</li> <li>• Background noise</li> <li>• Quiet</li> <li>• Gentle rhythm</li> <li>• Melodic or sing-song</li> </ul>
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## Olfactory Qualities (sense of smell)

*Smell is tied to our limbic systems and emotion, smells can trigger an emotional response.*

<ul style="list-style-type: none"> <li>• Calming                             <ul style="list-style-type: none"> <li>– Familiar odors with pleasant associations</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Alerting                             <ul style="list-style-type: none"> <li>– Most odors are alerting</li> </ul> </li> </ul>
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## Tactile Qualities



<p><b>Alerting</b></p> <ul style="list-style-type: none"> <li>- Light touch</li> <li>- Unexpected Touch</li> <li>- Moving touch</li> <li>- Poking</li> <li>- Close to hair, face, belly, hands or feet</li> <li>- Cold and/or wet</li> <li>- Irregular surfaces</li> <li>- Imposed by others</li> </ul>	<p><b>Calming</b></p> <ul style="list-style-type: none"> <li>- Firm pressure (large body areas)</li> <li>- Tight wrapping (small enclosed spaces)</li> <li>- Slow or static versus moving</li> <li>- Warm and/or smooth</li> <li>- Anticipated</li> <li>- Familiar or self imposed</li> <li>- <i>Deep pressure is calming and organizing and has an effect similar to proprioception – it is both calming and alerting/organizing</i></li> </ul>
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## Proprioceptive Qualities

<ul style="list-style-type: none"> <li>• Calming             <ul style="list-style-type: none"> <li>- Joint compression/ weight bearing</li> <li>- Heavy and sustained resistance (carrying/pushing heavy material)</li> <li>- <i>These activities can be both calming and alerting/organizing</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Alerting             <ul style="list-style-type: none"> <li>- Fast paced</li> <li>- Jarring or jerking</li> <li>- Quick changes</li> <li>- Abrupt starts or stops</li> <li>- Imposed by others</li> </ul> </li> </ul>
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## Vestibular Qualities

<ul style="list-style-type: none"> <li>• Calming             <ul style="list-style-type: none"> <li>Movement that is:                 <ul style="list-style-type: none"> <li>- Linear</li> <li>- Slow &amp; Rhythmic</li> <li>- Boring</li> <li>- Self-controlled, close to ground</li> <li>- Self imposed</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Alerting             <ul style="list-style-type: none"> <li>Movement that is:                 <ul style="list-style-type: none"> <li>- Rotary</li> <li>- Fast</li> <li>- Irregular, Jerky</li> <li>- Moving through space</li> <li>- Imposed by others</li> </ul> </li> </ul> </li> </ul>
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## Classroom Tips & Strategies

- Identify the problem(s) through collaboration with teacher
- Ensure teacher understanding
- Spend time in the classroom
- Spend time gathering baseline data
- Brainstorm possible solutions to try
- Develop a plan
- Develop method to measure effectiveness
- Develop accountability systems

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## Designing the environment to support the (sensory) development of all children.

- Role of the Teacher/Staff
- Routine
- Physical Environment
- Activities
  - Heavy work/deep pressure
  - Alerting
  - Calming



Collaborate with teachers, educate/PD

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## Role of Teacher/Staff

- Voice quality
- Interaction style
- Physical environment preferences
- Consistency



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## Classroom Routine

**Arrival**



- Consistent Daily Routine
- Predictable Schedule
- Children know & understand schedule
- Transition Procedures
- Alternate active & sedentary activities

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**Students will be more successful and confident in an environment that considers their sensory needs.**



A well-designed environment helps children feel secure. If a child feels comfortable in the learning environment, they will be more available for learning and less likely to show signs of sensory-based behaviors

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## Physical Environment

- Space and Classroom Layout
- Organization and accessibility of materials and furniture
- Visual qualities
- Auditory qualities
- Smells



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## Heavy Work (Proprioception) ~ The Great Equalizer ~

- Activities that include heavy work for the muscles, deep touch pressure and movement, have the most pervasive effect on behavior.



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## When in doubt – use heavy work!

- The same heavy work activities (*proprioceptive sensory input to the muscles and joints*) can be both calming and alerting
- Other types of sensory input vary in their effect (e.g., bright lights are visually alerting and dim lighting is typically calming)



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***Incorporate heavy work activities regularly and frequently to keep children focused and organized during the day.***

- Use heavy work at transition times
- Provide heavy work activities during choice time or free play time
- Ask parents to send in heavy work foods for snack and lunch (chewy or crunchy foods that make the jaw muscles work)

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## Provide Sensory Kits / Classroom Tools

- Sensory friendly classrooms vs. sensory diet
- Collaborate with teachers
- Empower students to identify what they need
- List of sensory strategies/tools to use in classroom that do not require skilled OT

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## Create Sensory Safe Spaces in the Classroom

- Sensory safe spaces where student can go to regroup, do pre-established/trained calming or alerting activities, then return to classroom activities

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## General education strategies

- Altering class schedule
- Altering instructional approaches
- Changing task or materials
- Changing location for student participation
- Creating sensory spaces in the class room available to all students

The Alert Program: How does your engine run?

The diagram shows a semi-circle divided into three sections: 'Too Low' (yellow), 'Just Right' (green), and 'Too High' (red). An arrow points from the 'Just Right' section to the title 'How is your engine running?'.

Brain Gym

The collage shows children engaged in various physical activities: a boy stretching, a girl jumping, a boy and girl holding up a paper airplane, a boy pointing at a board, a girl sitting on the floor, a boy and girl on the floor, and a girl jumping rope.

StickKids: Muddles, Mollies 'n' Touch

	<b>Motion</b> Most activities alert and organize the mind & body.
	<b>Pressure n' Touch</b> Calm and settles. A get ready, regrouping or transition strategy.
	<b>Heavy Work</b> Action and deep pressure for alerting & calming.
	<b>Suck, Chew n' Breathe</b> Organize & alert to help listen & focus.
	<b>Retreat?</b> Reduce sensory overload (visual, auditory & physical).
	<b>Routine n' Planning</b> Build-in cognitive support strategies familiarity, predictability & pre warnings.
	<b>Tips Tools n' Doing</b> Strategies for task or tool modification, and activities of everyday "doe it" events.
	<b>Clinic Time (in the Therapist version)</b> Promote child participation in coloring, drawing & designing therapy session activities.

The diagram below the table shows a semi-circle divided into three sections: 'slow' (blue), 'just right' (green), and 'fast' (red). A stick figure is positioned above the 'just right' section.

### The ZONES of Regulation®

<b>BLUE ZONE</b> Sad Sick Tired Bored Moving Slowly	<b>GREEN ZONE</b> Happy Calm Feeling Okay Focused Ready to Learn	<b>YELLOW ZONE</b> Frustrated Worried Silly/Wiggly Excited Loss of Some Control	<b>RED ZONE</b> Mad/Angry Mean Terrified Yelling/Hitting Out of Control

### What zone am I in?

REST AREA GO SLOW STOP

<b>BLUE ZONE</b>	<b>GREEN ZONE</b>	<b>YELLOW ZONE</b>	<b>RED ZONE</b>

### Use tools to get in the green zone.


### S'cool Moves

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## Sensory-Friendly Classrooms

- Collaborating with school counselor to integrate sensory processing strategies into a social skills curriculum
- Work with classroom teacher on classroom redesign and dynamic seating options to help increase attention and engagement

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## Self-Contained Classroom

- Students primary dx is PDD
- The problem – the teacher can't teach and the students can't learn after recess because the kids come in to class overactive and can't settle down enough to focus on learning.

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## What might you do?

- How would you collaborate?
- What strategies would you try?
- What would your role be in the design and implementation of these strategies?
- How would you measure effectiveness?

**DO SOMETHING NOW**

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## Poll

- Do you have a sensory room in any of your schools where students are removed from their classroom to get sensory diet activities or a sensory break?
- Yes
- No



DO SOMETHING NOW

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## What about Sensory Rooms?

- LRE Mandate
- Should be working to address sensory needs within the naturally occurring contexts of the school day
- If a separate space is deemed to be the LRE for an individual student then parameters need to be established as to when, under what circumstances and for how long, with staff training and data gathered.

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## Massachusetts Examples Summer Institute Projects

*“Strategies for Students with Sensory Processing Disorder in Inclusive Settings”*

- Participant Projects, examples of:
  - Student-specific sensory intervention/diet
  - Classroom management through sensory lens
  - Creation of sensory-friendly classrooms/schools
  - Focus on collaboration, OT/Teacher partners
  - Focus on data collection/progress monitoring

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## Systems Level Supports

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## Systems Level Supports

May be building or district

- Playground redesign to address universal access
- Consult regarding technology purchases to ensure universal access
- Handwriting curriculum committee to research and select district-wide handwriting program
- What else???

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## Sensory Friendly Schools

- Can address many issues, not only for those with sensory processing challenges, e.g. test anxiety, stress management, establishing a learning environment that facilitates engagement and focus, etc.

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## Systems Level Supports

- Have you been involved in any building or district level initiatives or supports?

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## Tips & Strategies: Systems Level

- Identify need/rationale
- Buy-in from administration and others, create a buzz
- Identify who needs to be aware, involved, who do you need to collaborate with?

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## Tips & Strategies: Systems Level

- Provide PD/education (parents, classroom staff, students, administration depending...)
- Identify materials and supplies and how you will get them
- Funding sources (not special education), PTO, Grants, Donors Choose, fund raisers, enlist parents to make or donate needed items, students make items

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## Tips & Strategies: Systems Level

Avoid:

- strategies that take students out of the context of the day (unless determined to be LRE for student on IEP),
- strategies that are imposed on teachers prior to trial/pilot,
- skipping the professional development phase
- Not informing those who need to know

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## Systems Level

- A Massachusetts example
- Meg's project...continued
- Goal: To become a Sensory Smart School
- 3+ year plan

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## Systems Level

- Funding kits for all classrooms
- Putting kits together
- Training Teachers
- Training Student
- Kids need to understand their needs and learn to manage them during the school day, not just in OT

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### Important Considerations for sensory supports at ALL Levels

- Collaborate
- Identify/prioritize needs/rationale
- Include the right people, get buy-in
- Address the right thing at the right time in the right context
- Involve/empower/educate student(s)!

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### Important Considerations for sensory supports at ALL Levels

- involvement/carryover with classroom staff and parents through PD/training
- ongoing collaborative consultation and monitoring and support
- measure outcomes through progress monitoring

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### Next Steps – Action Plan

- What are your challenges? What would you like to improve in? What do you hope to change?
- Identify next steps for these
- What will this look like?

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### Wrap-Up

- How we address sensory processing needs and how we use sensory strategies is not different than anything else we do in the schools. We focus on student access, participation and progress in the LRE when necessary for the student to benefit from their educational program. We support and empower others (primary service providers and students) to implement strategies in the naturally occurring contexts of the school program.

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## Additional Resources

- AOTA Evidence-Based Practice Resources: Sensory Processing and Sensory Integration
- May/June 2010 AJOT - Entire journal focused on systematic reviews on sensory integration/processing topics
- Occupational Therapy Practice Guidelines for Children and Adolescents With Challenges in Sensory Processing and Sensory Integration



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### AOTA Critically Appraised Topics

- Neurophysiological evidence for using a sensory-based approach
- Different types of sensory processing/sensory integration problems
- Performance challenges with ADLs, IADLs, education, work/transition, play/leisure, and social participation
- Sensory integration interventions in the areas of ADLs, IADLs, education/transition, play/leisure, and social participation
- OT interventions in the areas of ADLs, IADLs, education/transition, play/leisure, and social participation

<http://www.aota.org/Practice/Children-Youth/Evidence-based.aspx#sthash.J01pJOYA.dpuf>

## Sensory Tools For a first grade classroom

Margaret Saucier, MEd, OTR/L  
Strategies for Student with Sensory Processing  
Disorders in Inclusive School Settings  
PASS/DESE Institute 2013



## Project Description

- Designed to enhance collaboration with a first grade teacher who has an interest in sensory strategies but is not well versed in sensory processing disorders.
- Onset- whole class sensory tool kits with calming and alerting tools.
- Students become “Sensory Detectives” to determine what, if any, tools help them to maintain focus, attention, and arousal levels so they are prepared for the demands of learning throughout the school day.



## Project purpose

- Many children in my school would benefit from a sensory tool kit.
- Children with ADHD, Autism, Anxiety Disorders, and Sensory Processing disorders can present with sensory concerns.
- Does this mean they ALL need to come to the OT room weekly ( or more?) to use the sensory equipment or learn sensory strategies?
- Implementing sensory strategies within the context of the general education classroom allows children to begin to understand what interests them and what can help them throughout their school day to stay at an optimal level for learning without disrupting their day.



## Project purpose continued

- Collaboration is built-in to this project intentionally.
- Collaboration ensures that the classroom teacher understands and is ready to implement the sensory tool kits for the students who need them most.
- A classroom kit will also be available for the students who did not require an individual kit but may benefit, occasionally, from the tools available to the class.



## Process

- Meet with the building Principal, first grade teacher and Director of Curriculum to gain their support.
- Meet and collaborate with the first grade teacher to see what strategies she has used in the past and gain some background knowledge of her level of understanding about sensory processing disorders.
- Determine the easiest and most efficient way to collect salient data as to who is using what items and which items have been most successful for task completion by the focus student.



## Process continued

- Schedule collaboration/consultation time with the teacher to review the data collected and determine if any changes need to occur.
- Introduce the sensory kits to the students. Review the uses and advantages of the items with the students. Introduce the sign-in/out forms for the items. Designate the students as “Sensory Detectives” for the next few weeks.
- Check-in with the Sensory Detectives once a week.



**Student**  
**Sensory Detective Questionnaire**

Circle the answer that best fits this tool.

1. How does this tool make me feel?

Calm      Alert      Nothing      Afraid

2. Can I still listen to the teacher with this tool in my hand?

Yes      No

3. Am I getting my work done?

Yes      No

4. Has the teacher asked me to put the tool back?

Yes      No

Copy the name of the tool (from the sign-in/ out card) here \_\_\_\_\_

Teacher/Therapist Input: \_\_\_\_\_

## Process continued

- After the seven weeks of data collection and tool use I met with the teacher to review all the data. We determined nine children consistently used several items as calming tools.
- Nine sensory tool kits were put together.
- The project finished in this class with Sensory Detective certificates and OT pencils for everyone. The classroom calming tool kit remains in place for all the students to use while nine of the children have individual kits in their desk that they can access as needed.

## Classroom calming/alerting kits and Sensory Detective Certificates



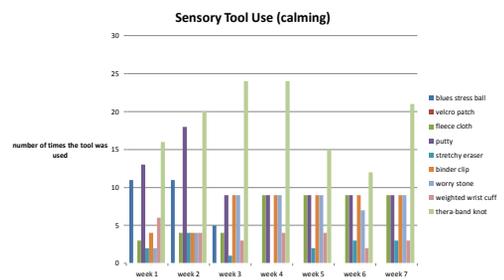
## End Goal????

- This is the project that never ends!
- It is a SMALL step to more collaboration and understanding between the Occupational Therapy Department and the Teaching staff.
- Increase awareness of sensory strategies available to support our students in their general education classrooms so they can be available for learning.
- Can meet the needs of more students this way.

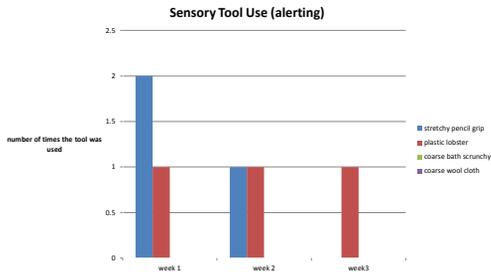
## Measure of effectiveness

- Process Outcome
  - Collaboration was a key component to setting up the sensory kit and the data collection forms for the classroom.
  - All the students were active participants in the research and appeared to enjoy trying out all the different tools.
  - Administration and other grade level teams have seen and heard about the sensory kits and are interested in beginning the sensory detective program in their rooms.

## Measure of effectiveness continued

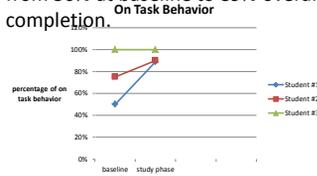


### Measure of effectiveness continued



### Measure of effectiveness continued

- Impact Outcome
  - According to the Time Sampling Data collected the focus student (student #1) increased his completion of both Math and ELA worksheets from 50% at baseline to 89% overall at the completion.



### Next steps

- Schedule a meeting with the building Principal, classroom teacher and Director of Curriculum to discuss moving this project into other classrooms.
- The cost of the sensory kits and the certificates and pencils will have to be considered in moving this forward. The supplies for one room came out to \$75.00.
- If funding is not available through the school budget; other meetings can be scheduled with PTO board and ASEF grant committee to secure funding.

### Questions & Answers????

