

**Presented by Aubrey Schmalle, OTR/L, SIPT
Owner of Sensational Achievements
Author of the Body Activated Learning Handbook**



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- A string with five wooden clothespins hanging from it. Each clothespin holds a colored card with a letter, spelling out 'Goals' from left to right: red for 'G', orange for 'o', green for 'a', yellow for 'l', and blue for 's'.

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OT Evaluations: Key Observations

1. More description than assessment?
2. Are scores interpreted or just reported? Meaning and clinical observation of performance are critical
3. Rating scales or direct standardized testing? (Perception vs performance)
4. Writing samples under different conditions?
5. Do other evaluations note areas of motor, perceptual, or writing weakness when OT does not?



Not Enough Information

1. **One line with score report:** How was the score achieved? Time based? Performance?
2. **Does the score reflect the issue?** Vision deficits can drive down visual motor scores; Writing under one condition doesn't reflect all writing demands in school;
3. **Does the rating match the behavior?** Scores on a sensory profile are categorized but there is often more than one explanation for a behavior (Ex: Seeking Input versus a praxis deficit)



Scores Only: What do they mean?

Sensory Processing Measure - Home

	Raw	T- Score	Performance
Social Participation	28	69	Some Problems
Vision	27	74	Definite Dysfunction
Hearing	10	56	Typical
Touch	19	64	Some Problems
Taste and Smell	N/A	N/A	N/A
Body Awareness	14	57	Definite Dysfunction
Balance and Motion	24	98	Definite Dysfunction
Planning and Ideas	27	99	Definite Dysfunction
Total	90	63	Some Problems



Sensory: Not Enough Information

1. **One line with score report:** What does it mean when a Sensory Profile comes out "more than others?" Or "Some Problems"
2. **Does the score reflect the issue?** Seeking behaviors could be praxis, visual sensitivity could be a binocular vision deficit - was that differentiated?
3. **Does the therapist have expertise in sensory processing or is certified in sensory integration?** Ask for a CV. Programmatic certifications are not the same as knowing how to assess sensory processing deficits.
5. **How is the therapist using the information to add supports or influence the sensory diet plan?**



Sensory: SIPT Testing

1. **Assesses praxis skills:** Specifically somatodyspraxias including difficulties translating verbal or visual information into motor plans impacting direction following, sequencing praxis, and bilateral coordination
2. **Assesses Visual Motor Skills but visual perception limited:** Design copying with and without a grid; Constructional Praxis (building), Space Visualization (mental rotations of shapes), Figure ground
3. **Looks at Tactile Perception:** Can determine if tactile issues are related to defensiveness or lack of perception of tactile information, which can impact visualization skills with multi sensory learning



Identifying Motor Deficits Accurately

1. **Bruininks Oseretsky Test of Motor Proficiency** - misleading because fine motor includes drawing on this test; Age band too wide. Normed 4:0-18:0 but tasks most easily performed by 7-9 year olds.
2. **Miller Functional and Assessment Scales:** Comprehensive. Breaks up score profiles for motor planning, coordination, bimanual skills, strength, etc. Includes some writing, cutting, praxis, gross and fine motor skills. Two age bands 2:11-4:0 and 4:0-7:11
4. **Movement ABC:** Four age bands; fewer tests for fine motor, hand-eye coordination, and gross motor but more accurate with age banding.
6. **GOAL:** Assessment is very functional for life skills - combination lock, clothing, walking in cafeteria, organizing a binder



Some New Tests

1. **Visual Skills Appraisal (VSA)** - screens ocular motor skills in combination with basic visual motor tasks made by Academic Therapy Publications
2. **Sensory Observations of Sensory Integration (SOSI):** Looks at muscle grading, balance, and coordination on a rating scale. Replacement for the Clinical Observations of Motor and Postural Skills (COMPS)



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Handwriting Concerns

1. **Copying is fine** - Does not need OT. Why Not?
2. **Typing is more important - Why get OT?** Typing has not replaced writing yet. Still needs to be functional
3. **All the kids are learning to type - Its not a deficit.** - Finger isolation and dexterity continue to develop through elementary years. Scanning for letters and keys can increase distraction. Inefficient typing can impact responses on timed testing



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Writing: Not Enough Information

1. Writing is only assessed with the VMI and a writing sample. Visual Motor integration is NOT a measure of writing abilities.
2. Did the OT look at writing under different conditions? Notes, copying, dictation, composition, lines, no lines?
3. If writing changes, why? A good letter legibility score does not mean writing is legible
4. Does a child have a dysgraphia? If so, what kind?



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Elements of Handwriting

1. **Visual Motor Integration:** use of vision to guide motor response in relation to the accurate formation of shapes/designs\
2. **Visual Perception** - Includes visual discrimination, visual closure, visual memory, figure-ground, form constancy
3. **Fine motor coordination and finger isolation** - Ability to coordinate finger movements with and without resistance
4. **Thumb strength/stability; Pencil control** - ability to engage the thumb for dynamic finger movement with adequate pressure and coordination



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Elements of Handwriting

1. **Orthographic memory** - recalling formation of letters from memory
2. **Directionality** - left/right awareness, midline crossing, spatial orientation
3. **Motor Planning** - how to form/build letters accurately to correct kinetic reversals
4. **Planning/Organization** - how to organize words on a page spatially and sequentially

Resource: <https://www.sbccc.sg/handwriting/>



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Copying Samples for writing

- Attention shifting - loses place
- Skips words with copying
- Orientation to the margin,
- Use of boundaries and anchoring
- Difference between copying and writing from memory?

Samples for writing

Near Point
 The Zoo keeper (has)ed
 the kangaroo (has)ed the
 pond. The kangaroo was
 under a log so that the zoo
 keeper cannot find him.
 Then

Samples for writing

Dictation
 then he met the clever
 green frog with snail
 his lunch with him.
Far Point
 After lunch the
 silly pink kangaroo and the
 clever green frog decided
 to visit the wise owl

Samples for writing

cat cat
 cat cat
 fox fox
 sky sky

Types of Dysgraphia

Spatial Dysgraphia:	Motor Dysgraphia:	Dyslexic Dysgraphia:
Oral spelling and finger-tapping are normal, yet students with spatial dysgraphia have a problem with illegible writing or drawing because of a lack of understanding of space, due to their internal processing of the information.	Difficulty in writing and copying words along with problems in drawing and finger-tapping speed.	Difficulty in writing or spelling words that is not associated with a lack of fine motor coordination, or a physical medical condition.

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Standardized Tests: Visual Motor/Perception

- Beery VMI** -
 - Visual Motor
 - Visual Perception: Discrimination
 - Motor Coordination
- DVTP-2 vs DVTP-3:**
 - 2nd Edition has Visual Discrimination, Figure Ground, Form Constancy, and Visual Closure
 - 3rd Edition has only Figure Ground, Form Constancy, and Visual Closure
- TVPS** - Most comprehensive - Visual Discrimination, Visual Memory, Spatial Relations, Form Constancy, Sequential Memory, Figure Ground, Visual Closure

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Limitations of VMI Testing

- Visual Motor** - Limited number of test items for younger children. If can't form diagonals, score significantly impacted.
- Visual Perception: Discrimination:** Affected by size and closeness of figures. Children with vision deficits may do poorly because the of amount of visual information on the page, not because this is the problem area yet ocular motor skills may not have been tested
- Motor Coordination** - Is the problem that the child does not use vision to guide pencil control or that the child does not have pencil control due to fine motor issues and/or hand weakness? Is there a motor planning issue?

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Testing with Handwriting Concerns

1. Test of Handwriting Skills (THS-R)
2. Writing/copying/dictation samples
3. M-FUN
4. ETCH
5. Print Tool (Handwriting without Tears)



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Things to Know

1. If the issue is not visual motor or fine motor, scores on those tests may be average even though handwriting is an area of concern - look deeper
2. Fine motor scores often don't reflect strength and pencil control as many don't have resistive activities (M-FUN excepted)
3. Kids may do well on one or more aspects for writing with standardized testing but it's not functional for a classroom



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Accommodations and Supports

- Slant Boards: 45 degree angle for reading and writing
- Highlighted Boundaries
- Visual Contrasts
- Reduce visual content on a page
- Increase font size and space between words
- Google drive features - highlighting text and read aloud



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Medical or Educational?

1. Sensory processing and integration impacts more than just self-regulation
2. Sensory Diets are only one type of support
3. Many sensory diets do not take into account vision-related issues



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Social Concerns but no writing issues: Request a Sensory OT Evaluation

- Opting out on the playground, controlling, being the director
- Talking over doing
- Aversion to specific environments: Cafeteria, Music class, Art, Gym
- Lack of personal space, bumping into peers
- Poor eye contact
- Difficulty working on group projects
- Poor self-regulation and stress tolerance
- Poor independent task completion



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Sensory Processing Disorders and Social Participation

- Patterns of sensory avoiding and sensory sensitivity on the Sensory Profile displayed the strongest correlations between social performance and sensory processing (Hilton, Graver, & LaVesser, 2007)
- Sensory processing deficits often have an impact on social performance which can alter the experiences during peer interactions
- Children with Developmental Coordination Disorder spent more time alone and were often on-lookers in social, motor-based play (Smyth & Anderson, 2000)
- Children who self-select out of social opportunities due to motor deficits narrow their experiences around which to form language



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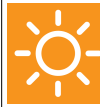
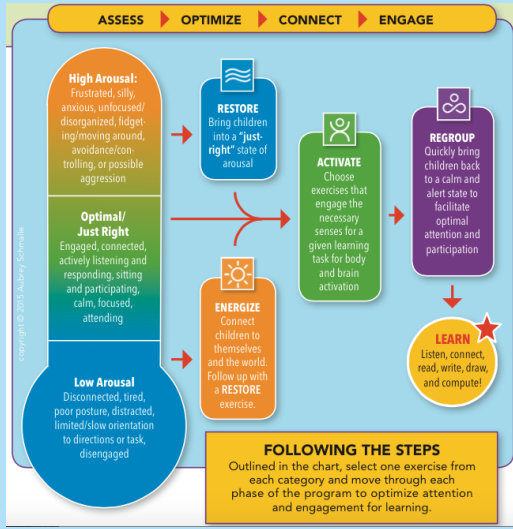
BODY ACTIVATED LEARNING



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How??

- A. Modify a child's regulatory state prior to task demands
- B. Facilitate more lasting changes to sensory processing through targeted exercises
- C. Use active engagement to facilitate motor learning
- D. Allow for recovery from skill to sustain participation over time



Speed, Unpredictability, Movement

Energize

Goal: Increase alertness and engagement



Rhythm, Pressure, Respiration

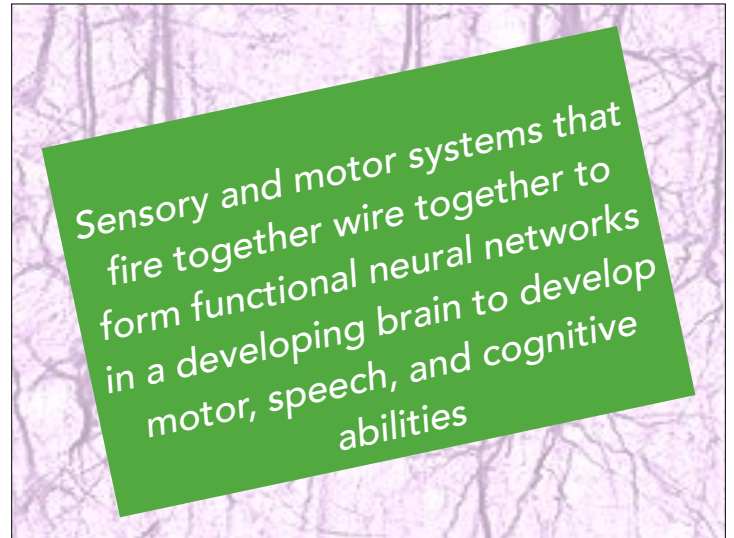
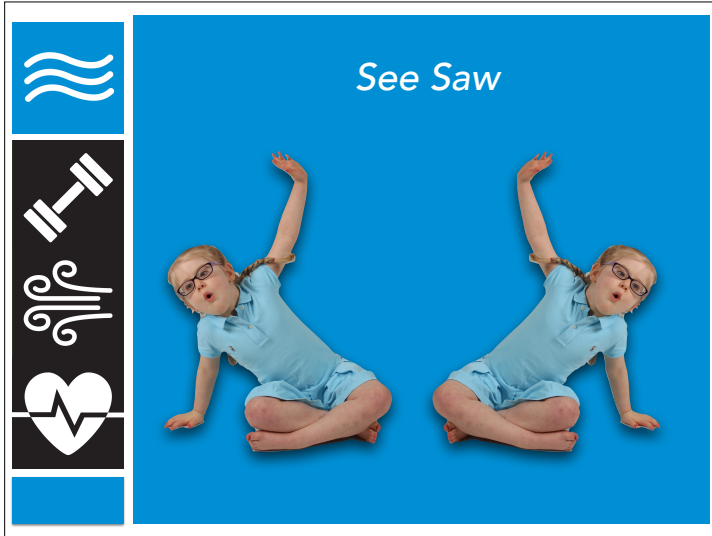
Restore

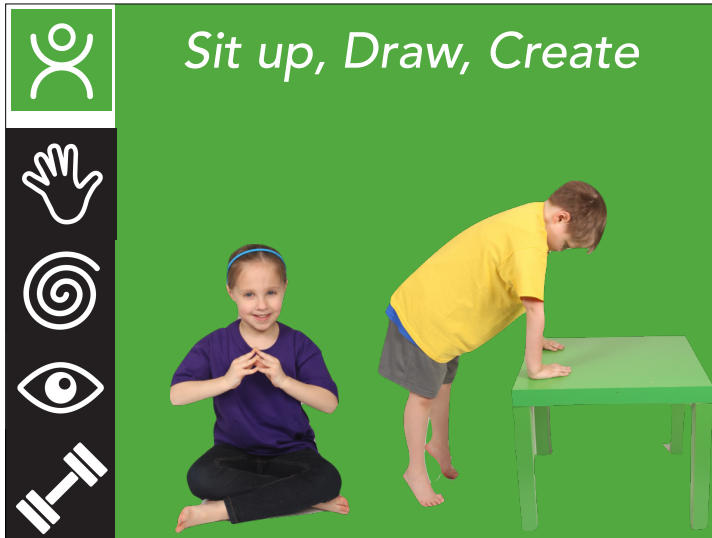
Goal: Restore children to an optimal level of arousal



Rope Pull Down







Revising the Current Sensory Diet

- What is being embedded by the teacher with COVID? Is it accessible?
- Does the child need their own tools/have them assigned? What is no longer accessible that. Must be supplemented at home?
- Are they using only Zones of Regulation or ALERT?
- Did they give a teacher a menu or list of "sensory reinforcers"?
-



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Supporting Self Regulation

- Sensory Snacks (quick supports)
- Sensory Breaks (3-4 longer movement breaks)
- Supportive Leisure (Daily/Weekly)
- Environmental Modifications: Time, tolerance, safe spaces, toolbox



School Age Thinking Box



Pinterest: SensationalAOT

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Adolescent Thinking Box



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Flexible Seating Options



Balance Ball with Inflatable Base by Trideer

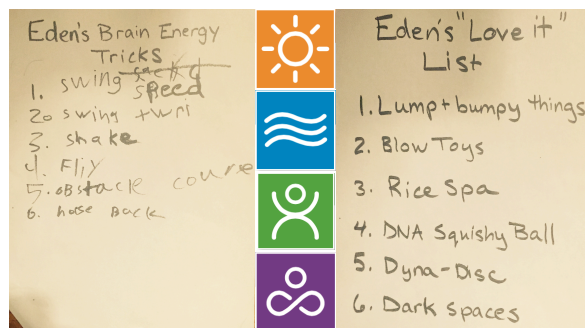
UPTM Stool

AlphaBetter Adjustable-Height
Stand-Up Desk by Safco

Ergo Seat

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A Journal In the Making...



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Self Awareness in Adolescents

- What wakes me up and gets me ready for the day?
- Do I need to calm down because something important is happening that day? (Testing/Assembly)
- How much can I handle and when do I need to regroup?



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Activating Games



Spin and Catch



Head tip and reach/roll

Create obstacle courses
and movement paths

Pass objects to peers
with social activities

Cross midline with
visual targets

Jump and grab

Activating Visual Attention Shifting

Reaching for materials in various planes

Grabbing a moving object at the count of 3

Setting up materials to the left and right

Pass objects to peers with social activities

Placing items on the floor for retrieval from sitting/standing



Restore Corner

Environment:

- Music?
- Non clutter/clean
- Cozy corner/Defined space
- Lighting
- Rocking chairs, tents, beanbags, hiding spots



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Restoring/Centering Activities



Goal: Restore children to an optimal level of arousal

Key Components


- Rhythm
- Pressure
- Respiration



Speed, Unpredictability, Movement

Energize

Goal: Increase alertness and



Optimize arousal through chores and routines



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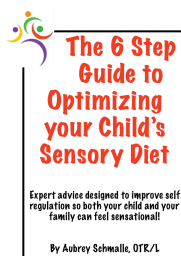






Activate with Kinesthetic Learning Activities





FREE Online parent training Masterclass !



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Optimizing Treatment Sessions

- Set up an new routine that incorporates all elements of the Body Activated Learning framework
- Provide environmental affordances for exploration and sensational-self awareness
- Modify learning and treatment activities based on a child's need to Activate certain connections for learning and participation



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ABA and Autism: Key Planning Considerations

- Proactive movement prior to ABA/DTT
- Reinforcers separate from proactive movement
- Regulating sensory activities and supports
- Type and set up of communication devices



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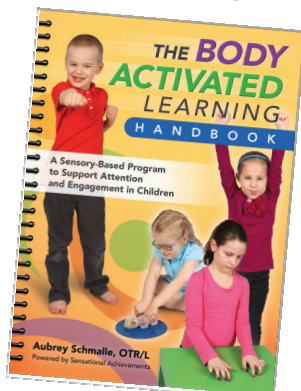
Autism: Key Planning Considerations

- Sensory over-responsivities and need for accommodations
- Ability to use vision to guide body movement
- Perseveration on visual stims and videos
- Severity of dyspraxia



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BOOST BOX

Use this exercise with spelling/math reviews, saying the letters/numbers with each push.
(ex: 2, +, 2, is, 4 or S-P-E-L-L-I-N-G)



MODIFICATION:

For older children, first breathe in through your nose. Open your mouth wide and breathe out through your mouth, making a "hot" breath on your hand. Then reverse the pattern, rounding your lips and sucking in "cold" breath. This time breathe out through your nose. This is known as Hot Breath, Cold Breath.



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