The SPM & SPM-P Quick Tips

Diana A. Henry, MS, OTR/L, FAOTA

The SPM Quick Tips
TIES CONFERENCE
April 27, 2015

Diana A. Henry, MS, OTR/L, FAOTA
ateachabout@aol.com

Best Practice 2015
- Brain research that SPD does exist!
- Research has been developed re OT/SI (ASI™)
- Affordable Care Act (ACA) and IDEA
  - Team empowerment:
    - Family Driven Intervention
  - Teachers, students, family satisfaction:
    - Patient Family Centered Care
- Gathering baseline data from standardized testing
- Data recording
- Retest & analyze data to develop evidence based practice

Downloadable Lyrics on CD
1. Sing and dance (preparing for sitting)
   *For busy bees
2. My heels down flat
   *For tippy toe tots
3. Get your pee in the potty
   *For potty pleasers

- Using the SPM/SPM-P for data driven intervention
- SPM Quick Tips User Guide: clinical reasoning
- Electronic scoring and sorting
- QT Intervention Report, team mtgs, data recording
- Cases: initial test → QT Record Form → retest
  - Postural control (Vestibular bilateral integration)
  - Praxis (motor planning and ideation)
- Ongoing research: Georgia and Flagstaff

The term “therapy practitioner,” = OT, PT, or SLP
Therapy assistants such as COTA, PTA can use too.

Today

Facebook:
 Henry Occupational Therapy
The SPM & SPM-P Quick Tips

The Sensory Processing Measures
The SPM & SPM-P Quick Tips

Supports AOTA’s Centennial Vision (2017)
The Issue Is - Creating evidence for practice using Data–Driven Decision Making

Schaaf, R. C. (2015)
American Journal of Occupational Therapy, 69, 6902360010.
http://dx.doi.org/10.5014/ajot.2015.010561

DDM provides practitioners with
- a systematic process for explicating reasoning
- using assessment data to
- develop
- and tailor client-centered intervention
- measuring
- and reporting on outcomes

This is what the SPM Quick Tips program does!

*Selecting SPM QTs*
Using clinical reasoning, choose strategies that most closely align with one or more of these 5 objectives:

1. Address the underlying deficits: modulation, postural control, perception, praxis (motor planning and ideation).

2. Provide family, staff, administration, or peer training to increase awareness, reframe interaction skills, share resources.

3. Teach self-advocacy as soon as it is appropriate to do so.

4. Adapt the task, materials, equipment, or environment.

5. Use cognitive or behavioral strategies (or both) to teach social skills and support social participation.

A few in the HUGE global village!

Katie Allgood, Kathy Barrett, Colleen Basaraba, Rena Baxter, Danielle Bell, Cheryl Domino, Dave Herzberg, Debbie Hinerfeld, Jennifer Brady-Johnson, Sarah Johnson, Heather Miller-Kuhaneck, Cristy Mendoza, Victoria Nackle, Amy Niezrecki, Carol Olson and her graduate students, Diane Parham, Thomas Passerino, Eric Polz, Jocelyn Reynolds, Pat Rose, Rick Ruess, Kathy Sandersler’s team, Deanna Sava, Jim Spear, Sue Swinderman, Monique Taylor, Kris Tuma, Renee Watling, Deb Wilson, Maureen Kane-Wineland, Janet Wright, workshop attendees throughout North America, England, Scotland, N. Ireland, Ireland, Australia….Thank You
**The SPM & SPM-P Quick Tips**

**SPM Scoring/Quick Tips Online: Workflow**

1. **Administer Online**
2. **Create Score Report Form**
3. **Create Quick Tips Intervention Report**

**READ**
Quick Tips User Guide!!!

**WPS strongly advises against using Internet Explorer**
They suggest Firefox, Chrome or Safari

---

**SPM and SPM-P Forms**

**Step 1:**
Coordinator tears off top **Summary Sheet** (was called **Profile Sheet in SPM**)

(left side perforated)

…and places in student’s folder

---

**#2:**
Using a ballpoint pen, rater completes **Home Auto Score Form** front and back

Let’s complete a few 😊

---

**Share these** with administrators, school principals, psychologists IEP team, other school staff, parents, clinic & school based therapists

See your handouts

They do NOT replace performance assessments

---

2015 © Henry OT Services Inc.
www.ateachabout.com

Facebook:
Henry Occupational Therapy
**The SPM & SPM-P Quick Tips**

**Using a ballpoint pen, rater completes Main Classroom Form front and back**

Let's complete a few 😊

**Main Classroom:**

- SOC #7
- VIS #15
- HEA #23
- TOU #28
- T&S #36
- BOD #39
- BAL #48
- PLA #57

After completed, you add the raw scores on Main Classroom scoring worksheet for each scale & write total in boxes

**Total Sensory Systems Scale Score: TOT** includes five listed systems, plus items (#41-45) for taste (gustatory) / smell (olfactory) processing:

- TOT is a summary score representing total dysfunction across all sensory systems.
- Useful if you need a single score that represents general dysfunction in sensory processing.
- Used to compare the child’s functioning in home and school environments.

Circle raw scores on the front (Main Classroom Form)
Example: 3 interpretive shaded areas on both Home and Main Classroom Profile Sheets

Physical Education Form
This information is in the Manual

Physical Education Class
Cutoff score = 28. Elements that may cause problems for children with sensory processing disorders include large open spaces (indoors and outdoors), paying attention to physical education instructor, learning new athletic skills, need for physical endurance, playing games on a team, and wearing gym clothes.

Example of PE Item:
Has difficulty completing tasks from a presented model.
Praxis (Planning and Ideas)/Motor planning

School environments

Art Class
Cutoff score = 29. Elements that may cause problems for children with sensory processing disorders include sitting on stools, smells and touch sensations from art materials (glue, paint, etc.), visual overload from artwork on walls, participating with others in creative projects, manipulating tools (scissors, paintbrushes, etc.), and drawing and other visual-spatial tasks.

Music Class
Cutoff score = 29. Elements that may cause problems for children with sensory processing disorders include sitting on the floor, sitting on chairs without tables, paying attention to music instructor, listening to music, singing, playing musical instruments, and participating in movement activities (e.g., dancing).

Sensory integration vulnerabilities
Item level interpretation -
Examining individual items provides descriptive clinical information on processing vulnerabilities within each sensory system

- Seems to have constant desire to have strong sensory input.
- Over-responsivity
- Under-responsivity
- Sensory seeking
  and also
- Perception
- Ocular control
- Postural control

Facebook: Henry Occupational Therapy

2015 © Henry OT Services Inc. www.ateachabout.com
Sensory vulnerabilities for each PE item

1. Resolves peer conflicts without teacher intervention.
2. Handles frustration without outbursts or aggressive behavior.
3. Has friends and chooses to be with them when possible.
4. Does not keep up with peers in physical activities.
5. Does not perform tasks in proper sequence.
6. Has difficulty completing tasks from a presented model.
7. Throws ball too hard or too softly for distance of target.
8. Acts fearfully about climbing, may refuse to climb.
9. Loses balance when running or playing with peers.
10. Seeks out heights; climbs excessively.
11. Jumps excessively; seeks out "crash landing" from heights.
12. Does not notice nearby motion of others (may collide with others).
13. Plays by self away from others.
15. Shows poor timing of motion (misses ball when kicking or swinging bat, brings hands together too slowly or too quickly to catch ball).

In the Manual pg 31 continued on next page

--

Several vestibular vulnerabilities are included in the SPMs

- Excessive seeking of intense vestibular input
- Vestibular over-responsivity / under-responsivity
- Problems with perception of body movements in space and/or poor postural control

SPM Main Classroom
1. Balance and Motion (BAL)

- Run hand along wall when walking.
- Wraps legs around chair legs.
- Rocks in chair while seated at desk or table.
- Fidgets when seated at desk or table.
- Falls out of chair when seated at desk or table.
- Leans on walls, furniture, or other people for support when standing.
- When seated on floor, cannot sit up without support.
- Stulls, leans on desk, or holds head up in hands while seated at desk.
- Has poor coordination; appears clumsy.

--

Facebook:
Henry Occupational Therapy

2015 © Henry OT Services Inc.
www.ateachabout.com
**Ocular - motor control**

- The ability to move the eyes in a smooth, functional manner, such as when tracking an object or quickly shifting gaze from one object to another.

- This capacity is integrated with the visual and vestibular systems.

- Item Example: Have difficulty controlling eye movements when following objects like a ball with his/her eyes.

---

**Postural control**

- The ability to integrate multisensory information particularly from the **vestibular and proprioceptive** in order to control body movement and position.

- For example: A child who is unable to sit up straight in a chair, or who needs to lean his head on one hand when writing, may be demonstrating poor postural control.

---

**SPMs Support Best Practice 2015**

- Examine contextual factors – can compare home & school/day care functioning

- Promote a problem solving approach

- Provide data on which to base decisions

- Promote collaboration between educational staff, home, and outside clinicians

---

**Difference between SPMs & Sensory Profile**

- Compares home and main classroom

- Includes Forms for additional environments

- Gives info on each separate sensory system*

- Includes praxis (motor planning & ideation)

- Includes scale for social participation

- Scoring is quick and results are easy to interpret

- Used as a test re-test to measure progress

- Has very strong psychometrics

- Includes the SPM QTs intervention strategies

The SPM & SPM-P Quick Tips

Diana A. Henry, MS, OTR/L, FAOTA

Occupational Therapy Practice Guidelines for Children and Adolescents with Challenges in Sensory Processing and Sensory Integration (AOTA, 2011)

Sensory-based strategies

ASI® (OT/SI)

Sensory Integration
ASI® (OT/SI)
Siglobalnetwork.org

Sensory-based strategies

Requires special training to provide OT using an ASI® sensory integration approach
Involves individualized intervention
Using sensation in an intentional manner
To support a child’s ability to succeed in daily life activities
See AJOT Sept/Oct 2014 on SI measurement

Often an integral part of early intervention, school-based practice, and community-based programs
Emphasize collaborative team empowerment
May be used in conjunction with ASI®

Sensory Diet ➔ Sensory Buffet

SPM Quick Tips strategies may include items for a sensory diet, term coined by Patricia Wilbarger, OT.
More inclusive terms such as Sensory lifestyle or sensory buffet, are used to emphasize diversity in the many possible sensorimotor activities that can be offered to the child (similar to the many food choices available at a buffet).

Strategy first used by an Australian preschooler

Seeking proprioception while lining up, by pushing against the door frame
So the teacher made it part of the day

Facebook:
Henry Occupational Therapy
Why Research?

Intervention research
Examine effectiveness of therapeutic techniques with ASI™
Outcomes Focused Research
Clear identification of intervention outcomes
These charges can also be applied to sensory–based strategies

How do school based therapists choose what strategies to use?

Conclusion:
- Results indicated that weighted vests were **not** effective in increasing time on task.
- The lack of an established treatment protocol strengthens the need to use intervention with systematic data collection.
  
Need: data driven intervention

Facebook:
Henry Occupational Therapy

The SPM & SPM-P Quick Tips

2014-2015 Georgia School Research with 20 OTs in Georgia

Spiral Foundation Research Forum

- Diana Henry
- Diane Parham
- Ayelet Ben Sasson
- Tina Champagne
- Brian Mullen
- David Lewkowicz
- Teresa May-Benson
- Karen Adolph
- Simone Gill
- Ellen Cohn
- Rosanne Schaaf
- Janice Burke (moderator)
**The SPM & SPM-P Quick Tips**

**Mulligan and Trolley-Hanson (AOTA, 2012)***

Practitioners must:
- **Conduct naturalistic interventions** in context of daily living at school, home and community
- **Change from us being the expert, to team members being the experts in their environments**
- **Include data** to see if what we are doing is working

*Early Intervention for Young Children with ASD

**Professional Reasoning in Everyday Practice**
(Schell & Schell, 2008)

**Clinical reasoning**
- The process used by practitioners to plan, direct, perform and reflect on client care

**Professional reasoning**
- Broadens the concept to include supervisory, managerial, and educational perspective related to service delivery

**"The invariable mark of wisdom is to see the miraculous in the common."**
Ralph Waldo Emerson

Development of the SPM Quick Tips began in 2004

Collaborated with Danette Rowley, OT in Canada

Case examples in Quick Tips User Guide

Case A: Child has difficulty tolerating clothes Modulation

Case B: Child was removed from a Montessori school because of being too "aggressive" Perceptual

Case C: Kindergarten child is reprimanded for not sitting cross-legged when on the rug Postural

Case D: Preschool child diagnosed with autism is unable to dress himself Praxis

2015 © Henry OT Services Inc.
www.ateachabout.com

Facebook:
Henry Occupational Therapy
Studies using SPM QTs
* 2006 (Opatia) Dx: ED: social participation…praxis
* 2007 (Dustin) Dx: ADHD… Also sensory issues?
* 2008 (CCNS) Dx: Autism…severe (self contained)
* 2009 (Case D) Preschooler: Autism……praxis
* 2010 (FM-Declan): Expelled from Montessori
* 2011 (Case C) Kg: Vestibular-postural- bilateral
* 2012 (Mason) Dx: Severe LD…Praxis
* 2012 (National and international case studies)
* 2013 (Bismarck ND preschool study): Prevention
* Summer 2013 (John): ASI (OT/SI)
* 2014-2015 Fulton Public Schools (20 OTs)
* 2015-2016 Hospital & school collaboration

KG CASE C in QT User Guide
Jan 14 through April-1-11

- Unable to sit cross legged & is reprimanded (All classrooms)
- Not able to stick to steady beat (Music)
- Collides into others (PE)

Vestibular bilateral integration: Postural Disorder

Rocks in his chair
Wraps his feet around the chair legs

Side sits in his classroom, resting on the back of his hand

2015 © Henry OT Services Inc.
www.ateachabout.com

Facebook:
Henry Occupational Therapy
Has to hold his feet to stay sitting up

Supports himself with his arms under his chin

Side sits in music

Reprimanded

Or, has to hold his legs

In library, he is also in trouble… outside of rug boundaries, leaning on his hands
Though engaged, leans head on hand

He told me his legs were tired and he wanted to sit down.

He leaned against the ruler and said, “This holds me up.”

He turns his paper instead of making postural adjustments.

Differences between Home and Main Classroom

1-11 initial test
Collapses instead of putting arms out for protective extension

Additional Clinical Observations:
- Poor stability
- Poor ocular tracking

Vestibular Nuclei

Vestibular Receptors
- Semicircular Canals
- Otolith Organs
The SPM & SPM-P Quick Tips

Diana A. Henry, MS, OTR/L, FAOTA

Vestibular Receptors

Semicircular Canals
and Endolymph Fluid

Inside the Canals
Structure of a Crista
(Schematic)

58

Vestibular System Schematic

Schematic diagram of the central connections of the vestibular system

60

Vestibular Receptors

Otolith organs with otoconia

Saccule / Utricle
(Head tilt/linear movement)

69

Vestibular Connections to the Eye

Juggling
influenced cortical plasticity: Changes in grey matter induced by training in juggling
(Journal of Nature: Issue 325 3-25-04
427:311-312
Draginski, B. et al)

Fix, Focus, and Follow

61

2015 © Henry OT Services Inc.
www.ateachabout.com

Facebook:
Henry Occupational Therapy
Gross motor skills observed: running, skipping, galloping, jumping, 4-point weight bearing yoga poses

Not able to skip and galloped briefly. Maintains a slightly wide base of support while running; arm movements often not smoothly in synch with legs. Feet slap as initial heel contact occurs, during both walking and running

Locks knees/elbows in hyperextension during static weight-bearing positions such as standing and on hand and feet

When sitting props self on arms in either long or side sitting; sitting cross legged is difficult; uses either “w” sitting or heel sitting as an alternative.

When hitting a balloon in standing/sitting, uses his entire body; difficulty isolating one arm for a controlled strike.

---

Initial SPM Team Meeting: 1-4-11
Quick Tips were used to brainstorm ideas

Water helper strategy & teacher has an ‘ah ha’ moment re touch and effort

1-27-11 KG teacher wrote:

He carries the water bottle bin to & from recess

The students love my spinning center