SPM and SPM-2 Quick Tips Case Study:

What's Behind Johnny's Behavioral Issues in Class?

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Music class rattled Johnny. The sounds disorganized his thoughts. During lunch in the cafeteria, the noises were downright painful. In the classroom, he constantly fell out of his seat. Even in PE class, which Johnny enjoyed, he needed to separate himself from his classmates and press his body against the wall to feel better.

As a punishment for his behavior, his teachers took away his recess time and repeatedly sent him to the principal's office.

They didn't know Johnny had sensory processing issues. When they eventually understood what he was dealing with, they made some simple changes that redirected Johnny's life for the better. Johnny's experience also taught the teachers how similar changes to the larger classroom environment could benefit so many more students.

"It's hard," said Johnny's mother, Pamela. "You can see when someone has a broken arm. When it's on the inside, you can't tell what's happening."

First signs in preschool

When Johnny was six months old, Pamela used to rest him on her hip while holding him—until he bit her shoulder, hard. He did it another time and then began to bite her regularly. She put him down when he bit her, which he didn't like.

As he grew up, Pamela noticed that getting ready in the morning was especially hard for him, and he often had meltdowns. But Pamela thought that was probably true for most kids.

Johnny's preschool teacher was the first one to notice that Johnny's behavior was different. Sometimes Johnny lay down in a corner of the classroom and went to sleep, or he threw a fit because he ran out of time and wasn't allowed to finish what he was working on. Or he bit someone when they weren't even mad at one another.

Pamela wondered what this behavior at school meant.

The preschool teacher said Johnny seemed overwhelmed sometimes. She gave Pamela contact information for the ADHD clinic in town.

Issues continue in kindergarten

In kindergarten, Johnny became more physical with other kids, getting in their space, and even hitting them. He pushed other kids off the swing because he wanted to swing.

Pamela wasn't seeing such challenging behaviors at home. Sure, Johnny was sensitive to some loud sounds, like a public toilet. But at

The Ball Chair

Benefits

A ball chair can help take the wiggles out and help you sit up straight. It can also strengthen your back. This is called 'dynamic sitting'.

To begin

- It is best to have balls with feet. They are easier to carry and they stay in place when the student stands up. Sizes vary depending on the height of the children. Shorter children will need smaller balls. Generally, a good sizing guideline is 14"–18" for preschool use, 18"–22" for K–1st grade, and 22"–26" for 2nd grade and up.
- Show children the ball chair and demonstrate how to sit on it properly.
- Give each child a blank sheet with lines and a pencil or marker.
- Have children list on their papers some safety rules for using the ball chair in their classroom.
- Once you are satisfied that everyone is clear on the ball chair rules, it's time to try it out.

Sample ball chair safety rules

OK

- Bounce a little
- Sit for 2 to 3 minutes
- Pass the ball quietly to your neighbor
- Put the ball up and out of the way when not in use

Not OK

- Bounce a lot
- Kick the ball
- Poke the ball
- Throw the ball
- Disturb others

Ball chair instructions

- It is important to keep a 90º angle at the ankles and slightly above a 90º angle at the knees to create a slight anterior pelvic tilt.
- Your feet should be flat on the floor or supported.
- Make sure the desk/tabletop is no higher or lower than about 1" above the bent elbows.
- Stand up slowly, keeping your hand on the ball so its feet stay on the floor.

Supplies needed:

- Balls with feet
- Pumps to inflate and deflate as needed

This information is taken from Diana Henry's *Tool Chest: For Teachers, Parents & Students: A Handbook to Facilitate Self-Regulation*.

home, she always kept Johnny and his younger brother on a good schedule, getting them up in the morning and having lunch at the same time. They read a story before bed and sang a song. There was flexibility to the schedule but also a firm routine.

She and Johnny visited the local ADHD clinic, where she was told Johnny was demonstrating behavior problems that stemmed from a lack of discipline at home. Pamela and her husband, Bob, followed the recommendations. They put up behavior charts at home and instituted rewards and timeouts. None of it worked.

Challenges in first grade

Johnny's first-grade teacher, Ms. L, noticed that Johnny kept to himself and grew defiant when he didn't want to complete a task. Johnny typically removed himself from the class when he was upset. Ms. L said he had trouble focusing and had crying meltdowns that "sometimes involved removing the rest of the class to ensure everyone was safe."

Ms. L let him take breaks and allowed him to leave the class to help him refocus. She took recess away for severe acts of defiance, like throwing things, tearing up papers, breaking things, and messing up others' projects. Instead of recess, Johnny was asked to write apology notes to his classmates. In the hallway, Ms. L sometimes held his hand so he was with the group and not lagging behind everyone.

Johnny was frustrated. His mom was too.

"I was lost and not really sure where to turn next," Pamela said.

Clues from an old friend

Every summer, Pamela and Bob take their sons to a summer camp in the California redwoods that Pamela has been going to since she was a kid. Johnny was fearless at the camp, climbing trees and exploring nature. There was also a large room where everyone gathered and sang. Johnny did not like the loud singing in the room, but Pamela always encouraged him to stay and participate.

Pamela described Johnny's struggles to a friend at the camp who happened to be an occupational therapy practitioner (OTP). The OTP observed Johnny, and after asking Pamela a series of questions, suggested that Johnny might have a sensory processing disorder.

"I had never even heard of that before," Pamela said.

After they returned home, Pamela found an online sensory processing checklist.

"I thought the questions were describing my child to a T," Pamela said. "And I couldn't believe it."

A local OTP visited the family at home and recommended that Johnny participate in a study conducted by renowned OTP Diana A. Henry. Pamela sensed the study could be a great opportunity for Johnny.

Observation leads to insights

Diana, a practicing OTP for more than 40 years, has authored the Sensory Processing Measure (SPM) and SPM Quick Tips (SPM QT). She has also worked as an arbiter, representing parents, clinics, and schools in different disputes and relying on collaboration to find the

best solution for the child. She believes that an OTP with additional training in sensory integration is an important team member when evaluating sensory processing challenges.

When Diana walked into Johnny's school for the first time, she met one of Johnny's former teachers, who insisted Johnny was not afflicted by any sensory issues, but rather had behavior problems.

In addition to using the SPM and other assessment tools, Diana observed him in his first-grade classroom. She saw that Johnny had been given a small cushion, but no one had analyzed his posture, his movement patterns, nor his difficulty interpreting sensory information.

Johnny was legitimately falling out of his classroom chair. He wasn't fooling around, as his teachers suspected. He couldn't keep his head up for too long, forcing him to rest his head in his hand, which made writing difficult because he couldn't hold down the paper he was writing on. As a result, he grew tired quickly, became distracted, and appeared to be monkeying around.

Johnny was more attentive and performed better with additional movement, such as in PE class. But just like in the loud cafeteria, Johnny still had to press his body against the wall for relief and the deep-touch pressure he craved. In music class, Johnny had to get away from the loud sounds to calm down. He lay down on the carpet to get some relief. Without understanding his sensitivity to sounds, the music teacher told Johnny to rejoin the class or go to the principal's office.

"Unless you are looking for these things, you just think he has behavior challenges," Diana said.

In addition to school-based occupational therapy (OT), Johnny was able to attend clinic-based sensory integration intervention. At one of the first sessions following evaluation, clinic-based OTP Kathy Barrett brought out some extra-heavy blankets and large foam rollers to provide deep-touch pressure.

"It feels sooooo goooood," Johnny said, refusing to come out from under the weight.

"Is it too heavy?" Kathy asked.

"It's perfect," Johnny said.

SPM Quick Tips across environments

Drawing from SPM QT intervention strategies based on the results of the SPM completed by Johnny's parents (Home Form) as well as by each of the individuals on the school staff (Main Classroom, PE, Music, Recess, and Cafeteria Forms), each school staff member and the parents chose SPM QT interventions that worked for them to use in their own individual school and home environments.

Diana showed Pamela different SPM QT techniques she could choose to use at home in collaboration with SPM QT techniques picked by each teacher at school as well as at the clinic, where Johnny also received sensory integration and Integrated Listening System (ILS) interventions. Everyone tallied the frequency of use (on their SPM QT Record Forms) of the SPM QT interventions they

had chosen. Over time, this provided the team with information about which SPM QT technique had been used, the frequency of use, and what was effective.

When working on homework, Johnny wore soft music headphones to help with his sound issues and sat on a 55-centimeter stability ball or "ball chair," which increases attention and alertness through gentle bouncing. In the mornings and evenings, Pamela piled on layers of pillows and blankets they called "toppings" in their "Pizza Game." She also gave him joint compressions and bear hugs in which she squeezed him as hard as he needed. It was all designed to provide deep-touch pressure sensory input to help him feel calm, resulting in increased focus.

"That's what we'd do right before he went to school so that he could be a functioning child in the classroom," Pamela said. "And we'd do those things at bedtime, too, to help him sleep."

At school, Diana recommended Johnny carry heavy books from one classroom to another. By doing this SPM QT "heavy job" to engage his muscles, the activity also allowed Johnny to feel he was being helpful. He also did some wall push-ups or bounced on an exercise ball. He wore his coat between classes to protect him from unexpected bumps by other students, which could lead to fight-or-flight responses.

These SPM QT interventions gave Johnny's proprioceptive, vestibular, and tactile systems the additional sensory input they needed. Ultimately, the SPM QT techniques were used across environments at home, school, clinic, and summer camp.

Johnny's life was about to change.

"Diana taught me so much, and I've taken it and used it," Pamela said. "Johnny has always been a free spirit. He's always been happy and loving. That is something that has never changed throughout his 13 years, which I am happy about."

Johnny makes strides

By providing the sensory input he needed, Johnny was able to sit in his seat, focus, and participate in classroom activities. He wasn't as physical with the other students and no longer felt the urge to run into or jump all over people.

Before, he would run up to one of his classmates to put his arm around them, but he would end up practically running them over because he didn't realize how hard he was pushing. That sort of thing didn't happen anymore.

After six years of school-based and then twice-a-week OT interventions, Johnny is now able to self-regulate much better than when he was younger. He stopped receiving intervention at the clinic because he was doing so well. Johnny will still occasionally get in someone's face, which can be a big deal in middle school. But it's rare he will get physical, Pamela said. He also doesn't have meltdowns.

"There are the things he did when he was one year old that make sense now," Pamela said. "The only way he could get the stimulation he needed was through his jaw, so he'd have to bite something."

Ms. L learned that consistency in the classroom was key. If staff lagged at providing the SPM QT interventions, Johnny struggled more than when they acted immediately to prevent meltdowns or defiance.

"He enjoyed his time in school. His body and facial reactions became easier to read and I could tell when a strategy was needed to help de-escalate or regulate him," Ms. L said. "Once I learned which SPM QT interventions to choose for him, they were easy to implement, and some strategies could be used on other students as well. I learned that he had a different way to process his feelings, and the different strategies I learned were beneficial to so many students."

Schoolwide changes

After seeing the success of the stability ball Johnny used, Ms. L decided to write a grant through donorschoose.org. Family, friends, and some community members donated to her project, and it was funded: She got a class set of stability balls. She has added to the flexible seating movement with wobble stools, crate seats, scoop chairs, standing areas, and wiggle seat cushions.

Students, parents, and teachers grew to like the stability balls as an alternative to regular chairs and a good outlet for restlessness. And three years later, she wrote another grant and provided three stability balls to each classroom in the elementary school that wanted them—leading to every classroom not only offering alternative seating to students, but allowing each child their choice of seating.

"The results are fantastic," Ms. L said. "Giving the children options for seating and increasing the ability to move throughout the day has provided much-needed movement while learning."

For Pamela, it's heartwarming to see the sensory seating at Johnny's former school.

"Teachers are hearing what their students need, realizing that they can make these small, little changes. It's not just going to benefit students diagnosed with ADHD and Sensory Processing Disorder. It's going to benefit many of them," Pamela said.

Breakthrough results continue

When a new school year starts, Pamela now meets with Johnny's teachers and any other staff who will see him throughout the day.

She tells each of them about behaviors they may see from Johnny, and she shares SPM QT strategies they can use with him. Most teachers are grateful for her tips. Many even come up with their own techniques to help Johnny.

"It's just like all the information and tools I can give to that person to help them because, like me, I didn't know what this was," Pamela said. "Most people saw him as a behavioral problem. It's like, OK, there's behavior involved, but it's coming from somewhere. There's a foundation. These behaviors are a symptom of what's happening."

In the end, Pamela and Ms. L shared what they learned with many people, enhancing the lives of students, school staff, parents, and camp counselors.

Overall, Johnny is much happier now that his sensory deficits are being addressed, and that's easy to see at school and at his summer camp, which is now better than ever. After using and sharing SPM QT with camp counselors, Johnny can now climb up trees safely at will. When indoors, he rolls around on the floor whenever he needs. Johnny doesn't have to listen to everyone singing inside a loud room anymore, either.

Pamela used to tell Johnny not to climb on this or that. And be careful! Stay right over here. And stop running around!

"All that time I had no idea I was doing the exact opposite of what he needed. He didn't know it and I didn't know it," Pamela said. "He, I think, has had such a better experience at camp because I've awoken to his body's needs. So that's something that I absolutely love. I'm so grateful that I know what's going on with him now and so does he. Now I have different boundaries at camp. It's like, I know now what you need at camp, and from now on you're going to get it."

The actual names of Pamela, Bob, and Johnny have been changed to protect Johnny's identity. This case study provides information based on the SPM and SPM Quick Tips. The SPM-2 and the SPM-2 Quick Tips had not been published when Johnny was receiving intervention following assessment. The SPM-2 and SPM-2 Quick Tips are scheduled to be released in early 2021.

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Sensory Processing Measure **SPM**

Quick Tips Intervention Report: Home Form

Child information

Name: Johnny
Age: 6 years, 8 months
Gender: Male
Grade: 1st

Parent/Guardian information

Name/ID#: Pamela
Relationship: Mother

SPM scale	SPM item number	SPM item	Sensory vulnerability	SPM Quick Tip number	SPM Quick Tip
Social Participation	6	Join in play with others without disrupting the ongoing activity?		0022	Videotape and use as a teaching tool.
				0024	Using a defined format, write a short story (if possible, with the child) that describes the current situation with the aid of pictures, teaches relevant and socially appropriate responses, and provides accurate information. *(The New Social Story Book)*
Body Awareness (muscles and joints, proprioception)	52	Tend to pet animals with too much force?	Perception	0313	Allow the child to have a "pet egg" for the day. Encourage him to avoid breaking the egg.
Body Awareness (muscles and joints, proprioception)	53	Bump or push other children?	Perception	0282	Provide frequent opportunities to obtain proprioceptive muscle input in order to develop a better body map. Examples of suggested activities include jumping; stacking living room pillows; putting heavy, wet laundry in the dryer; crawling under heavy beanbag chairs; crawling through a collapsible tunnel; building a fort; building an obstacle course; and participating in a tumbling class.
				0317	Teach the concept of three circles of appropriate space: • Space 1 (inner space): for family members • Space 2 (shake hands): for friends and teachers • Space 3 (wave at a distance): for strangers

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SPM Quick Tips Record Form

Child	Johnny	Environment	Home
Name of Recorder	Mom and teacher		

	Strategies	Comments
1	Teach the child about personal "space bubbles" by having him sit inside a hula hoop on the floor. Explain that the hula hoop is his "space bubble" and that it is important not to invade someone else's bubble. Bring hula hoops to bus stop as a reminder.	Education
2	Provide frequent opportunities to obtain proprioceptive muscle input for calming at bus stop: hula hoop, carry bucket of sensory supplies, sidewalk chalk, zoomball, bean bags, etc.	Proprioception
3	Sensory activities at bus stop: bubbles, beans/rice, Rubik's Cube (bring several), ask Mom for hugs.	Tactile input/deep pressure
4	Teach the concept of personal space: Space 1 (inner space): for family members Space 2 (shake hands): for friends and teachers Space 3 (wave at a distance): for stranger	Education
5	Using a defined format, write a short story (if possible, with the child) that describes the current situation with the aid of pictures, teaches relevant and socially appropriate responses, and provides accurate information.	Education

Week 1	Date							
Strategies	S	M	T	W	T	F	S	Total
1	1					1	1	3
2	1	1	1	1	1	1	1	7
3		1	1	1	1	1		5
4	1	1	1	1	1	1	1	7
5	1		1		1			3

Week 2	Date							
Strategies	S	M	T	W	T	F	S	Total
1	1	1	1			1	1	5
2	1	1	1	1	1	1	1	7
3								0
4	1					1	1	3
5	1		1		1			3

Week 3	Date							
Strategies	S	M	T	W	T	F	S	Total
1						1	1	2
2				1				1
3		1	1	1	1	1	1	6
4	1					1	1	3
5	1		1		1			3

Week 4	Date							
Strategies	S	M	T	W	T	F	S	Total
1								0
2	1	1		1	1		1	5
3		1	1	1	1	1		5
4	1	1	1				1	4
5	1		1		1			3

Strategies	1	2	3	4	5
Month Total	10	20	16	17	12

This SPM Quick Tips Record Form is part of the SPM and SPM-2 Quick Tips Case Study: What's Behind Johnny's Behavioral Issues in Class?

Sensory Processing Measure **SPM**

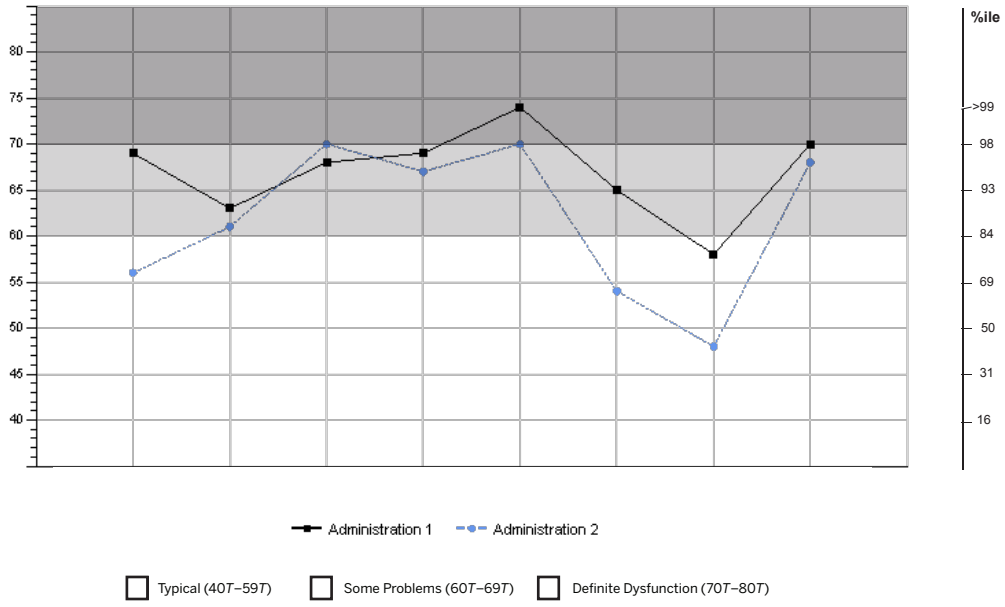
Progress Report: Home Form

Name: Johnny **Gender: Male**

Name	Administration 1	Administration 2
Age	6 years, 8 months	7 years
Ethnicity	White	White
Grade	1st	1st
Rater Name	Pamela	Pamela
Relationship to Child	Mother	Mother

Scale	Raw score	*T*-score	%ile	Interpretive range	Raw score	*T*-score	%ile	Interpretive range
Social Participation (SOC)	28	69	97	Some Problems	19	56	73	Typical
Vision (VIS)	17	63	90	Some Problems	16	61	86	Some Problems
Hearing (HEA)	17	68	96	Some Problems	19	70	97	Definite Dysfunction
Touch (TOU)	25	69	97	Some Problems	22	67	95	Some Problems
Body Awareness (BOD)	29	74	>99	Definite Dysfunction	25	70	98	Definite Dysfunction
Balance and Motion (BAL)	20	65	93	Some Problems	14	54	66	Typical
Planning and Ideas (PLA)	16	58	79	Typical	11	48	42	Typical
Total Sensory Systems (TOT)	**121**	**70**	**97**	**Definite Dysfunction**	**106**	**68**	**96**	**Some Problems**

T-score **Score profile**



This Progress Monitoring Report is part of the SPM and SPM-2 Quick Tips Case Study: What's Behind Johnny's Behavioral Issues in Class?