Autism and Behavior

SENSORY SUPPORTS AND STRATEGIES

RETHINKING AUTISM: EMBRACING NEURODIVERSITY WITH ASSISTIVE TECHNOLOGY RESOURCE SERIES

Autism is a developmental disability that affects social-communication skills and is characterized by repetitive movements, actions, or language patterns. It is also often associated with sensory processing difficulties, where individuals may experience increased or decreased sensitivity to sensory stimuli, leading to behaviors like avoiding or seeking out certain sensory experiences.

The way in which autistic students process sensory input can significantly influence their behaviors and academic performance. Sensory processing difficulties can manifest as hyperactivity, distractibility, or learning challenges, which can hinder meaningful participation in school activities. Assistive technology (AT) can assist with regulation, thereby improving their engagement.

Autistic individuals typically face three types of sensory responses:
1. **Sensory Over-responsivity**: Overreaction to sensory stimuli, resulting in anxiety or discomfort.
2. **Sensory Under-responsivity**: Low arousal, presenting as disinterest or refusal to engage.
3. **Sensory Craving**: A need for excessive sensory input, leading to hyperactivity or clumsiness.

The table below outlines commonly observed behaviors for each of these sensory responses.

SENSORY PROCESS-ING CHALLENGES	POSSIBLY OBSERVED BEHAVIORS
Sensory Over-responsivity	» Demonstrates strong emotional reactions to sounds (e.g., covering ears, hiding, escaping from loud noises) » Makes frequent noises to block ambient sounds » Displays emotional reactions to touch (e.g., withdrawal, rub area, physical aggression, verbal outbursts, etc.) » Avoids messy play or the possibility of touch » Attempts to escape movement-based activities (e.g., swinging, spinning) » Fears feet leaving the ground, climbing stairs, or being moved » Displays resistance to changes in routines » Demonstrates preference for familiar and mastered activities
Sensory Under-responsivity	» Exhibits low motivation or slow responses; prompt-dependent » Shows little or no reaction to pain (e.g., scrapes, bruises) » Has difficulty with motor planning and task sequencing » Breaks delicate objects frequently (e.g., crayons) » Slumps in a chair or sits differently despite instruction
Sensory Craving	» Makes frequent noises » Touches surfaces, peers, or forbidden items repeatedly » Seeks messy play or excessive touch » Rubs, bites, or picks at skin » Chews objects/non-food items frequently » Craves and engages in intense movement (e.g., bouncing, spinning, jumping) without dizziness » Demonstrates repeated head shaking » Seeks hugs or squeezes frequently » Fidgets to the point of falling out of chairs » Seeks physical support (leaning on walls/people) » Bumps/crashes deliberately into objects; stomps while walking

USING AT SENSORY SUPPORTS TO CREATE A SENSORY-FRIENDLY CLASSROOM

A sensory-friendly environment can help students feel more relaxed and focused, making it easier for them to learn and interact with their surroundings. The use of sensory supports may benefit all students in the classroom. When a support available to everyone becomes essential for a student with an Individualized Education Program (IEP) to access their learning, it is then recognized as assistive technology. For example, many individuals benefit from alternative seating options; however, some students may require seating with more tactile input to calm their body for learning. Teams need to gather information demonstrating how the tool is useful and helps achieve the goals outlined in the student's IEP.

The table below includes important considerations when providing sensory supports along with some universal classroom AT strategies to facilitate sensory regulation.

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Important Considerations	» Understand that common behaviors do not always indicate a sensory issue. Assess their intensity, frequency, and impact on the student's engagement before considering sensory strategies. » Avoid imposing sensory input unless recommended by an occupational therapist (OT). Consult the OT to discuss sensory strategies. » Recognize that not all sensory inputs (e.g., deep pressure, movement) will work for every student. » Promote self-regulation by offering a choice board and letting students choose their sensory supports. » Provide universal sensory supports in the classroom to reduce behaviors that may interfere with engagement and learning.
Example Supports and Strategies	The following strategies are designed for all classrooms to foster a calm and inclusive environment, supporting general sensory needs to enhance student focus and comfort. For individualized sensory needs that extend beyond these Tier I supports, consult the school-assigned occupational therapist for additional assistance. » Set up a "calm down" corner or quiet space (e.g., a tent) to provide a designated area where students can self-regulate if they feel overwhelmed or overstimulated. » Use light filters and maximize natural light to reduce visual strain from harsh lighting and create a more comfortable learning environment. » Provide noise-canceling headphones or earplugs and warn of loud noises (e.g., announcements, bells, fire alarms) to minimize auditory distractions and reduce anxiety during unexpected sound. » Play instrumental background music (70-90 BPM) if appropriate to create a calming environment that can improve focus and reduce anxiety.

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Example Supports and Strategies Continued	» Allow fidgets such as spinners or stress balls to help students manage energy and maintain attention during tasks if needed for participation. » Use colored overlays to reduce visual stress when reading for those with visual sensitivities. » Provide various alternative seating options to accommodate diverse sensory needs, helping students remain comfortable and focused (see section below).
Alternative Seating Options	» Bouncy chair feet under chair legs or individual desks » Balance ball chairs or wobble cushions » Exercise or elastic band around desk legs » Standing desks » Hug seats or bean bags » Wobble stools » Rocking chairs

This series of resources explores how assistive technology (AT) can be used to support autistic students and reduce behaviors that may interfere with engagement and learning, with the goal of enhancing independence and participating in their education. The handouts in this series include:
❏ Autism and Behavior: A Neuro-Affirming Approach Using Assistive Technology
❏ Autism and Behavior: AAC Supports and Strategies
❏ Autism and Behavior: Visual Supports and Strategies
❏ Autism and Behavior: Sensory Supports and Strategies