

Autism Spectrum Disorder Today: Life, Literacy, and the Pursuit of Content

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ABSTRACT

We hold this truth to be self-evident: Students on the autism spectrum need support with life literacy before they can reach for content literacy. This article provides educators with an understanding of the interplay between life and content literacy in the classroom, as well as strategies to maximize success for these diverse learners. Students on the spectrum arrive in the classroom with pervasive challenges related to emotional and sensory regulation, socialization, and engagement. These “life literacies” are crucial building blocks for basic functioning and are necessary benchmarks on the path toward curricular learning. Only once we have alleviated anxiety, regulated regulation, soothed the senses, supported socialization, and enhanced engagement can we explore new avenues for pursuing content assimilation and, ultimately, our collective goal of literacy and independence for all.

AUTHOR BIOGRAPHY

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We all know that the pursuit of content literacy has gotten more challenging in recent years, but that's not only because of Common Core. Today, with one in every 68 children being diagnosed with Autism Spectrum Disorder (ASD), general educators face an influx of students who come with a whole host of challenges that stand in the way of achieving content literacy. Before we can even consider approaching curricular content and standards with students on the autism spectrum, we're going to need to break through obstacles in the areas of anxiety, regulation, sensation, socialization, engagement, organization, and more. In other words, we have to reach for *life* literacy before we can teach *content* literacy. This article describes some of the common challenges educators encounter with students on the spectrum and provides practical strategies for mitigating those challenges and maximizing learning potential.



Inside/Outside ASD

We're going to need to differentiate more than ever as we work to move these uncommon kids toward "Common" goals, especially since every student on the spectrum is composed of a unique jumble of strengths and challenges.

Some wear their challenges on their sleeves. Their external, repetitive behaviors, like hand-flapping, noise-making, or rocking in place, may cause these students to appear to be "low functioning." But be careful not to *underestimate* these kids: Behind those busy hands and beyond those incessant noises, lots of innate cognitive ability may be lurking, coherent concepts developing covertly just below the surface.

Other students on the spectrum may present as highly articulate and well-versed in certain subjects, impressing us at first as "high functioning." But do not *overestimate* these kids: That extraordinary knowledge base is likely to be narrow, rigid, and rote. Inside, their cognitive, social, and adaptive skills may be extremely limited.

Life Literacy: The Anxiety Factor

Underlying these important individual differences, anxiety is a common denominator. Given their pervasive challenges, exacerbated by minimal coping skills, students on the autism spectrum have reason to be anxious. This is why they tend to avoid new experiences that might require improvisation or spontaneity, and instead immerse themselves rigidly in known entities, such as lining up toy cars, memorizing state capitals, or reciting the dates of TV premieres. This kind of rote information is completely *knowable*: It's orderly, predictable, and throws them no curveballs.

But at school, curveballs come from all directions in the form of pop quizzes, fire drills, absent teachers, rearranged desks, assemblies, bullying—even a change in the lunch menu or the introduction of a new curricular topic or a group work assignment. Anything unexpected, unscripted, or unfamiliar may be enough to trigger severe anxiety.

Easing Anxiety

With anxiety always elevated, students on the spectrum need us to reduce potential anxiety triggers whenever possible. Plan ahead and make those plans known to and understood by students on the spectrum through the use of visual schedules. Lay out the structure of the day in a way that is accessible and comprehensible to students. Tens of thousands of graphic icons exist in both tangible and digital form to help make the day predictable. Use icons to create a daily visual schedule for these concrete, anxious learners. (Have a look at barbaraboroson.com to find links to resources like these.)

Trust that the extra investment of time and planning involved in organizing visual schedules is worthwhile: It serves to pre-empt lots of bigger struggles down the road. If we do not take the time to mitigate anxiety triggers, we end up facing anxiety *reactions*. And because students on the spectrum struggle to regulate their reactions, anxiety reactions can be highly distressing—for them, for the rest of the class, and for us.

Life Literacy: The Regulation Factor

Anxiety reactions are particularly difficult for students on the spectrum to control because of a pervasive challenge known as executive dysfunction. When the executive function system works well, it helps to regulate our responses as needed, enabling us to shift gears, stay calm, modulate our moods, consider context, think before we act, learn from our mistakes, think about thinking, and manage many other interactive and adaptive responses. The absence of such skills has significant repercussions in all areas of functioning. Executive dysfunction manifests as



impulsivity, inflexibility, impatience, inability to read between the lines, and obliviousness to the needs of others, all of which severely compromise social functioning. Executive dysfunction also limits aptitude for updating and assimilating information, generalizing and summarizing (or getting the “gist” of) ideas, and evaluating another person’s intent or bias, all of which cause content competency to become elusive.

Regulating Regulation

Executive dysfunction can be an intractable challenge, but some students on the spectrum may be able to learn to consider their thoughts and reactions and ultimately insert a stop-and-think moment before impulses take over. Start off by encouraging them to examine causes and effects in the natural environment: *Why do you think we can’t go outside for recess today? Or, What might have happened to the pencil sharpener in Mr. Dawat’s room that is causing his students to use ours?* This is a kind of debriefing that is crucial in making overt the links between actions and reactions. Guide students to reflect on the results of their own past behaviors in order to consider how they might respond differently next time. (And be sure to clarify for these concrete thinkers that by “next time” you do not mean *only* next time; you mean *every* time!)

Eventually, we can try to help some students on the spectrum begin to generalize these new thinking-about-thinking skills to meet the lofty meta-cognitive expectations of today’s curricular standards, but it’s a long way from here to there and plenty of other fundamental ASD factors will need to be addressed first.

Life Literacy: The Sensory Factor

Many behaviors that may seem impulsive or meaningless are, in fact, serving a sensory function—they actually help students regulate their capricious sensory systems. Ninety percent of students on the spectrum have sensory systems that are, essentially, calibrated differently than others, letting in either too much or too little sensory input. When the sensory system lets in too much sensation, busy visual fields, certain noises, smells, tastes, textures, positions, and movements can be perceived as overwhelming and unbearable. Guarded against unexpected sensory assaults, a student may seek to *avoid* sensory input any way he can by covering his ears, hiding, or refusing to wear clothes of certain fabrics, eat foods with certain offensive textures or smells, or participate in activities that require tactile interaction with certain materials or physical interaction with other students.

On the other hand, when the system lets in too little sensory input, a student is driven to seek more sensation any way she can, by stomping her feet, chewing her hair, tipping her chair back, poking, hugging, or biting others, turning upside down, bumping into walls and furniture, and resorting to other input-seeking behaviors.

Many of these kinds of behaviors are known as *stims*, or self-stimulating behaviors. They are the ways that students on the spectrum strive to achieve sensory equilibrium. Stims comprise a complex and sometimes paradoxical picture. Behaviors like flapping, spinning in circles, rocking back and forth, humming, and making other noises often help to rev up and energize a student who is lethargic. But surprisingly, those very same behaviors can also calm a student whose senses are overwhelmed. Refocusing his attention on his own familiar behaviors can actually enable a student to tune out other overwhelming sensations. Because of this, it can be difficult to determine whether a student’s behaviors are reflecting overstimulation or understimulation.

To complicate the picture even further, any source of sensory input can be perceived as overwhelming or underwhelming by any student at any time. So while the sound of the dismissal



bell might send a student ducking under her desk and crying, that same student might not even notice when a whole pile of textbooks goes crashing to the floor right behind her. And the very specific combination of triggers and reactions we see from one student today, may be inside-out and upside-down from that same student tomorrow.

Satisfying the Senses

Due to their complicated and unpredictable nature, the sensory systems of these students need to be handled with care. To do this, we must first acknowledge that, regardless of how peculiar they may seem, sensory reactions, like other behaviors, serve a critical function: They are all forms of communication. They are symptoms of a deeper problem; signals to us that something is amiss. So, much as we might wish difficult behaviors would just go away, simply extinguishing them will not suffice. Extinguishing a behavior by using a token economy or other classroom behavioral system fails to address the underlying *function* of the behavior. Just extinguishing these behaviors is akin to giving someone only a cough drop when he has strep throat. That cough drop will certainly ease his discomfort for the moment, but if that's *all* we do, then we allow the underlying problem to worsen and intensify. Instead we need to dig deeper and address the symptoms at the level of causation. This means learning to anticipate sensory and other triggers and adapting the environment to relieve the impact of those triggers on our students.

The best way to head off problematic situations is to learn from those who've been on the receiving end of a student's reactions before. When possible, tap the knowledge of teachers who have worked with this student in the past. And better yet, ask the parents and caregivers. By being open to learning from families, we not only benefit from years of hard-won wisdom, but we open the door to productive, two-way collaboration. Consider sending home a family questionnaire that reaches for this kind of information: What tends to set this child off? What makes the situation better? What makes it worse? (Help yourself to a reproducible questionnaire at barbaraboroson.com.)

Once we know what some of the common sensory triggers are, sensory adaptations in the classroom can take two forms:

First, we can make changes to the classroom environment so that it is more sensory neutral. Turn off some of the lights, minimize decorations, set up a sensory corner that includes an assortment of soothing and stimulating options, and create clearly organized classroom spaces—all of which will ease the sensory strain on students who have ASD.

Second, in addition to the accommodations and modifications mandated by the IEP, we can offer sensory supports to individual students to help settle their specific sensory imbalances. Bumpy seat cushions, weighted vests, fidget toys, chewy snacks, and noise-cancelling headphones are student-specific tools that support students' sensory needs. (For lots of great sensory tools and ideas, consult with your school's occupational therapist or take a look at barbaraboroson.com.) Once the classroom has provided a student with finely tuned sensory supports, she should have no more need to seek to regulate her own sensory environment with behaviors that are disruptive and socially alienating to others.

Life Literacy: The Social Factor

Indeed, those unchecked impulses and surging sensory reactions do students no favors socially. The social landscape is, in some ways, the most treacherous terrain in inclusive settings for students on the spectrum. They tend to remain grounded in concrete. Their play and conversational skills rarely make the same developmental leap from the concrete to the abstract



that others make around third grade. This means they may not be able to read between the lines of social innuendo, make conversational inferences, or differentiate sincerity from sarcasm or cruelty from kindness.

These students also struggle with *mindblindness*, a challenge that limits their ability to take the perspective of others. This can cause students on the spectrum to interrupt, to push ahead in line, and sometimes even to laugh when someone gets hurt. Mindblindness is often, quite understandably, mistaken for an absence of empathy. For example, when a student continues chattering to a peer about the number of electoral votes his favorite presidential candidate has earned even when that peer has suddenly begun vomiting, it would be easy to view that as an absence of empathy.

But the fact is, individuals on the autism spectrum can be very empathetic. What gets in their way is that they often do not recognize the signs that call for empathy and may not know how best to demonstrate empathy. Like so much else for students on the spectrum, empathy and social savvy need to be scripted and taught.

Enhancing Empathy

We need to teach these students how to read a room and how to respond: *When someone starts coughing, you need to stop talking! Or, when you enter a room and find that everyone is quiet, you need to be quiet, too.*

We need to teach them how to read the feelings and how to respond. Teach them what *hurt* looks like, what *tears* mean, and what they can do to help. We need to guide them to consider what *sad* feels like in their own experience in order to help them understand how it feels for others. We need to teach them what *impatience* sounds like. The fact that the teacher is suddenly speaking loudly may not intuitively be recognized as a signifier of impatience unless we teach these students to make that connection. Since these thought processes may not occur spontaneously, scripting empathic recognition and empathic responses helps draw out the empathic instincts that so often get lost in translation.

Streamlining Socialization

As hard as it is for students on the spectrum to make sense of their typical peers, it's equally hard for their typical peers to make sense of them. Typical students need to go more than halfway to forge a friendship with students on the spectrum, and most are either unwilling or unable to do that. It's just easier to be friends with someone who gets your jokes, takes turns, reads your feelings, and is flexible in choosing activities. This often leaves students on the spectrum left out, rejected, teased, and bullied—an atmosphere that causes them to retreat even further into the repetitive, predictable comfort of their inner worlds.

Try to model inclusive behavior for your students: Publically emphasize strengths. Single out a student on the spectrum for what she *can* do rather than for what she can't. Is she the best schedule-follower? An authority on historical dates? Show the class that you rely on and value her.

Choose books for your class that exemplify and celebrate all kinds of diversity—whether race, religion, ethnicity, gender identification, or ability. (Find a list of recommended books featuring all kinds of diversity, organized by theme and reading level at barbaraboroson.com.)

Point out that we all have challenges: Some of us struggle to see—we wear glasses. Some of us struggle with reading or math—we get reading support or a tutor. And some of us struggle to sit still, take turns, stay calm, get along with others. Remind students that we are all in school



to learn and that each of us is working on developing different skills. As a class, we must all help each other learn and grow.

Life Literacy: The Engagement Factor

Given the combined effects of sensory dysregulation, executive dysfunction, social rejection, and resultant anxiety, it's no wonder that students on the spectrum need us to address and accommodate these challenges before they can pursue curriculum. But even once the day is scheduled, anxiety abated, reactions mitigated, senses sated, socialization scripted, and classmates on board, students on the spectrum will still tend to withdraw from the academic curriculum. By definition, everything we teach is new to them—that's why we teach it. And anything new can cause these students to retreat deeper into their comfort zones to what they know and to what feels safe.

Activating Engagement

In order to engage these students in curricular learning, we need to make lessons feel familiar and unthreatening. We do this by finding a hook.

A hook is a metaphorical link between the curriculum and a student's special area of interest. Whether a student on the spectrum is preoccupied with airplane engines, iPhones, pizza, or SpongeBob SquarePants, there is always a way to hook a special interest into any aspect of the curriculum at any level. For example, a quick Google search of SpongeBob episodes yields topics that include pineapples, fast food, sea life, camping, labor strikes, roller coasters, and many other themes that can be linked to the curriculum. Hook students into math lessons by having them calculate the cost or the nutritional value of a meal at SpongeBob's Krusty Krab Restaurant. Hook students into ELA by having them write about a time they themselves had an underwater adventure or went camping or to an amusement park, just like SpongeBob. Hook students into social studies by having them investigate the labor laws that might have protected SpongeBob when he walked off his job. Hook students into science by considering the composition of the ocean floor or the physics at work during SpongeBob's dreaded roller coaster ride.

The Pursuit of Content

Now the class can move forward together, shifting away from SpongeBob to pursue the intended lesson.

Be sure to offer plenty of organizational supports along the way. Students on the spectrum often learn information in solid, immutable chunks that do not blend with or modify prior knowledge. In fact, these students do not necessarily make any contextual connections between new and prior knowledge, so information is rarely filed into meaningful contexts or retrievable mental categories. Instead, chunks of new information tend to float, untethered, throughout a cluttered, cognitive sea of randomly strewn concepts.

Support meaningful assimilation of information by guiding students to file new concepts in sensible contexts for easy retrieval: *Now that we know why the colonists wanted their freedom from the British, let's look at the steps they took to obtain that freedom.*

Guide their thinking as they demonstrate their knowledge by providing templates that help them to visualize new concepts in relation to other concepts, such as timelines, sequencing grids, Venn diagrams, cluster maps, concept webs, and character trees. Offer options to maximize output. Whenever possible, let students have the choice of writing, typing, singing, dancing, pantomiming, painting, sculpting, collaging, montaging, podcasting, powerpointing, and videotaping. Let them capitalize on their strengths to show what they know.



And while they're busily showcasing their new knowledge, be on the lookout for praiseworthy moments. Keep in mind that these students meet with more than their fair share of frustration and failure across most aspects of their lives. Try to catch them in the act of doing well, doing the right thing. Whether they are waiting quietly, working carefully, writing neatly, listening patiently, planning ahead, taking turns, using manners, making eye contact, or being flexible, try to note and honor that fleeting moment of positive effort. If you wait until the task is complete, then a less-than-satisfactory outcome may overshadow the tremendous effort expended along the way and the opportunity for praise will have vanished.

Look closely for those elusive moments and celebrate them. Without a doubt, these challenged and challenging students need all the positive energy they can get in order to keep trying and believing. And without a doubt, so do we.