DECODING AUTISM
and leading the way to successful inclusion

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SUCCESSFUL INCLUSION

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Introduction

Inclusion is a hallmark of contemporary education in the United States. Today’s public school classrooms are more diverse than ever before, and curriculum is infused with myriad new sensibilities and sensitivities. And it’s a good thing, too, because in recent decades, the prevalence of autism has skyrocketed, bringing profound new challenges to the education community.

Generally speaking, the more diverse and inclusive our classrooms and schools are, the more robust and rewarding the learning environment becomes. But it must also be noted that the more diverse and inclusive our classrooms and schools are, the more often education leaders like you will find someone knocking at your door with a question or concern. That very same diversity that greatly benefits students, schools, and districts requires knowledgeable and mindful support from superintendents, assistant superintendents, principals, assistant principals, teacher leaders, and others in and around the school community. Inclusion of students on the autism spectrum in the classroom asks a lot of your teachers; it can make teaching harder. You’re going to have to give them all the help you can.

Many students on the spectrum bring with them an array of distinct strengths and quirky expertise that add intriguing new dimensions to an educational program. But they can also bring with them challenges that are broader, deeper, and more idiosyncratic and intractable than those of their typically developing peers.

As a leader, you set the tone; you spread the gospel. It’s up to you to share and promote a detailed and nuanced understanding of autism spectrum disorder (ASD). It’s up to you to determine whether these students are welcomed, supported, understood, and therefore successful or . . . well . . . not. It’s up to you to ensure that every single member of the faculty and staff—from teachers and paraeducators to every secretary, custodian, lunch aide, and recess monitor—is on board and up to speed on
inclusion and ASD. And it’s up to me—through this book—to give you information you need to lead this charge competently, confidently, and compassionately.

This book is intended to help you “decode” the many manifestations of ASD and lead educators to attend to the individual needs of students on the autism spectrum in the context of the whole classroom and the whole school. That’s what inclusive education is all about. Within these pages you will learn about the particular challenges that students on the spectrum face and collect preventive and responsive strategies that you and your faculty and staff can use efficiently and effectively.

*Decoding Autism and Leading the Way to Successful Inclusion* is best read cover-to-cover, as the chapters combine to provide a holistic view of ASD and help you develop new ways of seeing and being in and around your school and district. But after you’ve taken it all in, come back to specific chapters as needed for a quick brush-up on what’s happening, why it’s happening, and what you can do about it.

Here’s what you’ll find in the pages ahead:

Chapter 1, “Autism Spectrum Disorder Today,” reviews the evolution of the diagnosis and its current prevalence. We will also look at federal regulations governing the education of students with disabilities and at inclusive and other options for education settings and interventions.

With the stage thus set, we will turn our attention to decoding specific areas of challenge, summarizing each one’s etiology and describing its manifestation. Then each chapter goes on to provide strategies for pre-empting, addressing, and ameliorating that challenge and leading the way to successful inclusion.

Chapter 2, “Anxiety,” explains why anxiety is a baseline emotional state for students on the autism spectrum. Here you will gain important insight into how to avoid common exacerbating triggers and learn to respect the power of the comfort anchor.

Chapter 3, “Executive Function,” demonstrates that difficulties in executive function can affect almost every aspect of students’ experience in classroom settings in big ways. In this chapter you will gather strategies to help students and their teachers regulate actions and reactions and avoid total system failure.

Chapter 4, “Sensation,” explores the complicated world of sensory modulation and other sensory factors that are intense triggers for most students on the spectrum. Here, you will get a sense of the variable effects that sensation has on these
students, the distinctive ways they try to self-regulate, and strategies to help you and their teachers ease their way.

Chapter 5, “Communication and Socialization,” speaks to the ever-present communication and social challenges that typify ASD, many of which relate to pragmatic language. This chapter looks at fundamental communication and social challenges; providing strategies to help teachers maximize the efficacy of social-emotional learning for students on the spectrum and to help you lead a cadre of supporters throughout your school community.

Chapter 6, “Engagement and Cognitive Acquisition,” digs into the inner workings of the autistic mind. Why can these students seem so far away? How can teachers reel them in, ready to learn? Here you will find creative and sometimes counterintuitive classroom strategies for reaching and teaching these students and getting them hooked into curricular learning.

Chapter 7, “Behavior,” comes relatively and perhaps surprisingly late in the book—with good reason. Once you and your faculty and staff have developed a deeper understanding of what students on the spectrum are communicating via their actions and reactions (as explained in Chapters 2–6), you’ll encounter far fewer disruptive behaviors. However, when they do occur, Chapter 7 is here to provide guidance on how best to respond.

Chapter 8, “Parents and Guardians,” examines the perspectives of these essential members of the school community, providing insights as to why relationships with them can be so fraught and how you can lead the way to more productive collaboration.

This book taps into the dual perspectives of its author. I have been a school administrator, autism educator, clinician, and consultant for almost 30 years, and I’m also a parent of a young adult on the autism spectrum. My combination of professional and personal experience infuses my books with a deep understanding of individuals on the spectrum as multifaceted whole people who are imbued with skills, talents, and knowledge right alongside their considerable challenges.

It is difficult to present the autism spectrum as a single entity while still doing justice to the differentness of the individuals who are on that spectrum. Fact is, there is no way to generalize as to which “kinds” of students on the spectrum will do better
in inclusion classrooms, or what “types” will fare better in special classes. There is no such thing as being on “one end of the spectrum” or another. And common categorizations such as high- and low-functioning autism seriously miss the mark. Here’s why: imagine an actual visual light spectrum—picture it in your mind. Does red, at one end, mean “least colorful” and violet, at the other, mean “most colorful”? No. That would be a gradient, not a spectrum (Lynch, 2019). Instead, consider that different locations on a color spectrum represent more of some kinds of light and less of others. Some students on the autism spectrum have significant social challenges but are not easily triggered by sensation. Some may be cognitively strong while exhibiting flagrant self-stimulatory behaviors. Others may be highly verbal while also quite difficult to engage. They are all on the spectrum, each exhibiting a personal and unique composition of shades and hues, light and shadow. (Read more about the inaccuracy of the terms high- and low-functioning in Chapter 1.)

An inclusive school must support and educate students with identified disabilities alongside their typical peers to the greatest extent possible. In an inclusive school, students with special needs are placed in a variety of classroom environments but are all recognized as equally valuable members of the school community and are actively considered and included in all school and districtwide events to the greatest extent possible. This is the essence of inclusive education and reflects the spirit of least restricted environment (LRE) as described in the Individuals with Disabilities Education Act (IDEA). This also means that some of the students on the spectrum in your inclusion classes will be bright red with very little blue; others, deep violet with hints of yellow and green; and others, representing every color of the rainbow.

Some students on the spectrum unequivocally do need the all-encompassing, autism-adapted environment that a special class setting or special program can provide. However, many can flourish in an inclusion classroom where they can learn and socialize right alongside their typically developing peers—as long as they get the modifications, accommodations, and differentiated instruction they need. When inclusive programming is done well, every student in the building, as well as every adult member of the school community, stands to grow and benefit from the experience. For most students on the spectrum, an inclusive school is not only the least restrictive environment, it’s also the best environment.
In this book, I generally refer to students who have autism spectrum disorder as being “on the spectrum.” I use this terminology to reinforce the concept that autism spectrum disorder is really not one single entity but an endless array of color gradations, each luminescent and different from the next. There are so many variations, in fact, that it is impossible—and inaccurate—to paint the entire spectrum with a single brush. On the one hand, an individual who is nonverbal, nonambulatory, and incontinent may be considered to be on the autism spectrum. On the other hand, Dan Aykroyd, Tim Burton, Emily Dickinson, Stanley Kubrick, Nikola Tesla, Greta Thunberg, Alan Turing, and Andy Warhol also may be considered to be on the autism spectrum. All of these people are believed to meet the criteria of a single diagnosis: autism spectrum disorder. That’s why I put an emphasis on the spectrum.

Another word about inclusive words: while this book focuses primarily on inclusion as it relates to the education of students on the autism spectrum in a co-taught classroom, inclusion is also a state of mind. A diverse school and an inclusive school are two very different things. A diverse school is one that contains students of many different races, cultures, religions, genders, orientations, and abilities, all coexisting—peacefully or otherwise. An inclusive school is a unified community composed of all of those students—as well as their families, teachers, support staff, and leaders—and is built on a framework of mutual understanding, respect, and support for all individuals. To that end, this book seeks to use exclusively inclusive language. This includes, in part, the use of the singular they, them, and their, to be inclusive of students who are nonbinary, questioning, or otherwise gender fluid.

My hope is that by the time you reach the end of this book you will have a deeper appreciation of the many hues of ASD and a better sense of inclusion as the differentiated unifier that it is. When you hear that knock on your door, buzz of your phone, or ping of a new message, you will be ready to welcome all comers with competence, confidence, and compassion.
It’s not your imagination: there are more students on the autism spectrum in our schools now than ever before. That’s because autism is being diagnosed more now than ever before. Whereas in 2000, 1 in every 150 children in the United States had a diagnosis of an autism spectrum disorder, by 2018 the U.S. Centers for Disease Control (CDC) confirmed that the prevalence had reached 1 in every 59 children (Baio et al., 2018). The clear question is why. The answer, however, is not a straightforward one, and the factors are anything but clear.

In this chapter, we will take a look at the increasing prevalence and evolving definition of autism and at what regulations and options guide educational program provision today.

**Decoding the Diagnosis**

One likely explanation for the increase in the number of students on the autism spectrum is the changing clinical definition of autism over the years. As the diagnostic terms have broadened, more and more students are meeting the criteria for autism diagnosis.

**How Did We Get Here?**

Before 1994, autistic disorder could be diagnosed in an individual only when highly significant impairments in the areas of social interaction, communication, and behavior were manifest. These criteria restricted the diagnosis to individuals who were deeply lost in themselves: most either nonverbal or minimally verbal,
often profoundly idiosyncratic or mercurial in their interactions and behavior, and quite limited in self-care abilities.

**Asperger’s In**

In 1994, when the American Psychiatric Association (APA) published the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), autistic disorder was subsumed into a broad category called pervasive developmental disorders (PDD). DSM-IV identified five subtypes of PDD: Rett’s syndrome, childhood disintegrative disorder, autistic disorder, Asperger’s syndrome, and pervasive development disorder–not otherwise specified (PPD-NOS).

At that time, the newly defined subtype called Asperger’s syndrome differed in significant ways from the other PDD subtypes. While individuals with an Asperger’s syndrome diagnosis presented social idiosyncrasies and restricted, repetitive patterns of behavior much like their peers elsewhere on the autism spectrum, they did not present delayed or impaired speech. Additionally, most individuals with Asperger’s presented relatively better-developed cognitive, adaptive, and self-help skills. They were generally articulate, somewhat independent, at or near grade level academically, and relatively ready to learn. Before DSM-IV, these relative strengths would have precluded this cohort of students from meeting the criteria for any kind of autism diagnosis.

Did students like these exist prior to 1994? They sure did. Some were never officially identified or diagnosed at all; they slipped under the diagnostic radar, often thought of as “quirky kids” or “little professors.” Others were diagnosed with a learning disability or emotional disturbance, or classified as “other health impaired,” for lack of a more suitable moniker. The subtype Asperger’s syndrome filled a need for a more descriptive diagnosis for these students who didn’t quite meet the earlier criteria for autistic disorder, and it paved the way for them to receive much-needed social, behavioral, and other services both in and out of school.

**Asperger’s Out**

In the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), published in 2013, the criteria for diagnosing autism-related symptomatology changed once again. Experts had begun to suspect that the five subtypes of pervasive developmental disorders were insufficiently distinguishable from one another.
They feared that subjectivity was interfering with diagnosis and perhaps contributing to the sharp rise in diagnostic rates. To that end, all five subtypes have been absorbed back into a single umbrella term with a broader reach: autism spectrum disorder (ASD). To reduce the unreliability of subjective interpretation, diagnosticians now are required to substantiate and justify an ASD diagnosis by completing standardized rating scales and providing annotative descriptions that characterize the specific nature of an individual’s functioning. Anyone who would have met the former criteria for any of the PDD subtypes would now be diagnosed, simply, with ASD (APA, 2013).

Although there were a number of contentious components related to this change, the most enduring controversy surrounds the elimination of Asperger’s syndrome as a diagnosis. During the 19 years in which it was an active diagnosis, many individuals who were diagnosed with Asperger’s syndrome—my own son among them—took some degree of comfort in having a specific diagnosis that clearly distinguished them from their more profoundly affected peers on the autism spectrum. Those who grew comfortable with their Asperger’s diagnosis may be loath to renounce that signifier—and they don’t have to. Even though Asperger’s syndrome and other PDD subtypes are no longer being diagnosed, individuals who received those diagnoses previously are free to continue using them.

As the diagnostic criteria have evolved and broadened over the last 25 years, more and more individuals, whose challenges might once have been only vaguely recognized, now find a home on the autism spectrum. From this perspective, the skyrocketing “prevalence” rates may more reflect the broadening and redefining of the diagnosis than an increase in the actual incidence of autism.

Co-Incidentally . . .

Scientific theories abound as to whether there is also an increase in the actual incidence of autism, and if so, why.

One such theory regarding the etiology of ASD is gaining traction. Genetic markers have been identified that change the way instructions in the genetic code are translated and carried out by the body. These changes, known as mosaic mutations, may alter the nature of a gene’s expression. Depending on the way these markers interact with other genes and with the environment, they may predispose a child to be genetically more susceptible to having ASD (Krupp et al., 2017).
The Vaccine–Autism Fallacy

The global vaccine fallacy perpetrated by discredited doctor Andrew Wakefield has now been completely debunked by science. His broadly accepted but baseless claim linking vaccines to autism had been published in the scientific journal *The Lancet* in 1998. However, in 2010, upon finding that the study was undermined by falsified data, ethical violations, and financial conflicts of interest, *The Lancet* unequivocally renounced and retracted Wakefield’s claims, and the British General Medical Council stripped him of his license to practice medicine. Since then, study after study conducted by unbiased researchers has shown absolutely no association between vaccines and autism. The *Washington Post* stated plainly, “First things first: ‘Vaccines do not cause autism.’ So says the Centers for Disease Control and Prevention, the World Health Organization, the National Academies of Sciences, Engineering and Medicine, and the American Academy of Pediatrics, along with dozens of studies published in prestigious, peer-reviewed journals. The scientific consensus on vaccines and autism is thorough and solid: There is no evidence of a connection” (Kaplan, 2017). Indeed, the American Academy of Pediatrics has produced a 21-page document containing summaries and links to dozens of studies and reports that demonstrate the safety of vaccines (2015).

But, regrettably, the damage was done. This false connection has been extremely hard to shake in public perceptions about autism. You will surely encounter parents who remain convinced that vaccines are to blame for their children’s autism, and other parents who eschew vaccinations altogether for this reason.

Please spread the facts: ASD is neurodevelopmental in nature, meaning that it is related to the wiring of the brain, and it manifests during the early years of child development—the same years when most vaccines are administered. However, the use of vaccines during that developmental period is coincidental, not causal. Autism is not caused by vaccines.

What Is Autism Spectrum Disorder Today?

According to the DSM-5 (APA, 2013), in order to qualify for the diagnosis of ASD individuals must meet, across multiple contexts, *all* of the five criteria described in Figure 1.1.
### Figure 1.1: Practical Summary of Autism Diagnosis

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Common Components</th>
<th>Examples of What to Look For</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Persistent deficits in social communication and social interaction, not accounted for by general developmental delays.</td>
<td>• Deficits in social-emotional reciprocity.</td>
<td>• Atypical social approach, failure of expectable back-and-forth conversation, reduced sharing of interests and emotions.</td>
</tr>
<tr>
<td></td>
<td>• Deficits in nonverbal communicative behaviors.</td>
<td>• Poorly integrated verbal and nonverbal communication; atypical eye contact and body language; limited of understanding or use of facial expression and gestures.</td>
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<td></td>
<td>• Deficits in developing and maintaining relationships beyond those with caregivers.</td>
<td>• Difficulties adjusting behavior to suit different social contexts; difficulty sharing imaginative play, making friends; apparent lack of interest in peers.</td>
</tr>
<tr>
<td>2. Restricted, repetitive patterns of behavior, interests, or activities.</td>
<td>• Stereotyped or repetitive speech, motor movements, or use of objects</td>
<td>• Repeating the same words or sounds over and over; lining up toys; using self-stimulatory behaviors.</td>
</tr>
<tr>
<td></td>
<td>• Rigid adherence to routines, ritualized patterns of verbal or nonverbal behavior; excessive resistance to change.</td>
<td>• Insisting on specific responses to specific prompts; getting notably upset in the face of changes in plans, rules, roles, or expectations; insistence on sameness.</td>
</tr>
<tr>
<td></td>
<td>• Highly restricted, fixated interests.</td>
<td>• Inability to shift focus from specific topic of perseverative area of interest; strong attachment to unlikely objects.</td>
</tr>
<tr>
<td></td>
<td>• Over- or under-reactivity to sensory input or unusual interest in sensory aspects of environment.</td>
<td>• Fascination with lights or spinning objects; aversion to certain sounds or textures; indifference to pain or temperature.</td>
</tr>
<tr>
<td>3. Symptoms must be present in early childhood.</td>
<td>Atypical restrictive, repetitive patterns of behavior relative to same-age peers; must be noted in early childhood. In some cases, social communication challenges may not become apparent until later in childhood.</td>
<td>• In early childhood, lack of interest or engagement in unfamiliar activities; preferring to play alone; minimal eye contact; restricted play, e.g., lining up or dropping toys repeatedly, failure to respond to own name; possible loss of previously attained skills.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• In children, lack of interest in social connection, e.g. not seeking approval, not tuning in to surroundings; atypical use of pragmatic language.</td>
</tr>
</tbody>
</table>
**Figure 1.1:** Practical Summary of Autism Diagnosis

<table>
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</thead>
<tbody>
<tr>
<td>4. Symptoms together limit and impair everyday functioning.</td>
<td>Social and behavioral idiosyncrasies consistently interfere with the student’s ability to meet the expectable demands of home and school.</td>
<td>Symptoms are present across contexts: symptoms significantly interfere with the smooth functioning of daily life at home (e.g., meals, bedtime, sibling relationships) and at school (e.g., engagement in curriculum, socialization, transitions).</td>
</tr>
<tr>
<td>5. Symptoms are not better accounted for by an intellectual or other global developmental delay.</td>
<td>Autism spectrum disorder is a broad and pervasive diagnosis and cannot be diagnosed if less pervasive diagnoses are able to address all manifest symptoms.</td>
<td>Areas of differential diagnosis include: social (pragmatic) communication disorder, social anxiety disorder, selective mutism, auditory processing or language challenges, attention deficit disorder, attention deficit–hyperactivity disorder, obsessive-compulsive disorder, Tourette syndrome, and many others.</td>
</tr>
</tbody>
</table>

**Additional Considerations:**
- An autism spectrum disorder diagnosis must be accompanied by a stated level of severity as follows: Level 1 ("requiring support"), Level 2 ("requiring substantial support"), or Level 3 ("requiring very substantial support"). The determination of level is dependent on the extent to which symptoms interfere with daily functioning.
- Autism can occur with or without intellectual impairment, language impairment, or other neurodevelopmental or behavior disorders. So, a student may have, for example, ASD with ADHD, ASD with OCD, or ASD with dyslexia. Or a student with ASD may be “twice-exceptional,” meaning, in this case, that they have both ASD and superior intelligence or exceptional talents or skills.

*Source:* American Psychiatric Association, 2013. *Author’s Note:* This table is for informational—not diagnostic—purposes. Autism can be diagnosed only by a licensed medical doctor (e.g. child psychiatrist, developmental pediatrician, or pediatric neurologist) or a PhD child psychologist or neuropsychologist, using resources and tools created specifically for the purpose of diagnosis. This process is often done in conjunction with a team that includes social workers and speech, occupational, and physical therapists, along with input from parents or guardians and school professionals.
Because the ASD diagnosis no longer uses subtypes to distinguish the many significant differences among individuals on the spectrum, diagnosticians must now elaborate on the severity of the symptoms. Doctors must specify whether the condition occurs with or without intellectual impairment; language impairment; a known medical or genetic condition or environmental factor; another neurodevelopmental, mental, or behavioral disorder; or catatonia. Along the same lines, diagnosticians must also now rate the social and behavioral symptoms as specifically as possible, in order to characterize individuals and their degree of need, from Level 1 (requiring support) to Level 3 (requiring very substantial support) (APA, 2013).

The rest of this book explores these criteria in functional, school-related, “real-kid” terms. Even though all students diagnosed or classified with ASD meet the criteria, they do so in an endless variety of ways. That means that every individual on the autism spectrum is exactly that: an individual on the autism spectrum. Every such student will be uniquely different from every other—as different from one another as typically developing students are.

**Setting an Inclusive Tone: What’s in a Word?**

The converse of normal is abnormal, a term that implies a less-than or even sinister status. You won’t see either of those words in this book. Instead, this book uses the neutral, judgment-free terms atypical and typical, respectively, to refer to students who do and don’t have special needs.

Taking the notion of typicality one step further, the term “neurotypical” was coined by some members of the autism community, in the 1990s, to describe people who are not on the autism spectrum.

From that notion of neurotypicality sprang a broader movement toward neurodiversity, which seeks to portray all natural variations in neurological functioning as benign and inclusive, implying that all neurological functioning lies on a spectrum. In this sense, every one of us, different as we are, has a place on the same universal, neurodiverse spectrum.
ASD at School

There are several common aspects of behavioral, social, and communication challenges that most students on the autism spectrum manifest, albeit in their own ways. Among your students on the autism spectrum, you can expect to see many who are preoccupied with specific activities and interests and highly dependent on routines and consistency. They may display repetitive and stereotyped motor mannerisms and extreme responses to sensory input. Most of these students make minimal eye contact, have difficulty with peer relationships and interactions, and show a lack of desire for socially or emotionally shared experience. Their expressive and receptive language skills may be delayed, limited, or idiosyncratic, and some students on the spectrum may be nonverbal.

It’s important to note that contained within these characteristics are some apparent contradictions. For example, social communication challenges can present in some students as a complete absence of spoken language and in others as an onslaught of relentless or repetitive social language—and any variation in between. Sensory challenges can include both extremely heightened sensory reactions and extremely diminished sensory reactions—that is, sometimes even within the same student. All of these complex challenges are addressed in depth the upcoming chapters.

Meanwhile, tucked in and around the many pervasive challenges are some significant strengths that are often overlooked. It’s crucial that everyone working with students on the spectrum look closely for subtle strengths and call them out whenever we can, so that neither we nor our students get discouraged by their many in-your-face challenges.

Call It Out: Detail Detection

One of the greatest learning challenges students on the autism spectrum face is understanding the big picture— that is, really getting the gestalt of a lesson or concept. Indeed, students on the spectrum are often so mired in the veins on the leaves that they miss the entire forest—and the trees, too! (Read about supporting big-picture learning in Chapter 7.) In certain contexts, however, there can be tremendous value to their degree of attention to detail. Many students on the autism spectrum have powerful memories and keen perceptions of numerical patterns, inconsistencies, and items out of place. They can be quite expert at tasks requiring repetition or precision, such as data entry, problem solving, and pattern analysis.
By the same token, thanks to that attention to detail, many students on the spectrum develop an expertise in an area of interest to them. Perhaps because they are unimpeded by awareness of the bigger picture, and unaware of pressure toward social conformity, they tend to dive deep into the weeds and often cultivate an extraordinary base of knowledge on a single topic. While that topic may be of questionable value to the curriculum, it is often nevertheless an impressive body of knowledge. (Learn more about singular focus in Chapter 2 and about how to add curricular value to those interests in Chapter 6.)

Call It Out: Rule Reliance

Students on the autism spectrum are eager cooperators and rule followers. Because rules add so much comprehensible structure to the day, these students may cling to school and classroom rules like the lifeline they, in fact, are. This means that as long as students on the spectrum understand the rules precisely, they are likely to be the most reliable rule followers and cooperators in the school. They may, in fact, take their rigid adherence to the rules a bit too far at times by policing their peers. Still, it’s important to note that these students are doing what they are told. And that is a standout skill in the school setting.

Call It Out: Truth Telling

Students on the autism spectrum have difficulty taking the perspective of other people. While this often makes them unfortunately unaware of how their words and behaviors may impinge on the comfort of others, it also makes them blissfully free of worrying about how others will perceive them. For this reason, students on the spectrum are unlikely to be manipulative; they don’t connive to change the way others think because they don’t tend to think about what others think! (Read more about perspective-taking in Chapter 5.) Likewise, these students don’t generally perceive any reason to lie. When you stop a student in the hallway and ask why they are not in music class, they are unlikely to make up an excuse. In order to do so, they’d have to anticipate what you want to hear and what you don’t want to hear, and then manipulate the situation to their benefit. Seeing no reason to be anything but honest, they respond, plainly: “The music teacher has bad breath.”
Setting an Inclusive Tone: Inside/Outside

Perhaps the most confounding differences among students on the spectrum relate to whether the symptoms of their autism are primarily internal, primarily external, or a bit of both. Because the symptoms of ASD can vary so greatly from one student to another, it is easy to generalize and make assumptions about these students on the basis of what you see. Don’t do it. It’s a surefire way to underestimate or overestimate these complicated individuals.

For example, many students on the spectrum wear their challenges on their sleeves; their autistic symptoms are instantly apparent to others. These external challenges can include flapping hands, rocking back and forth, limited or nonstop verbalizations, idiosyncrasies of speech such as echolalia, and idiosyncrasies of language such as one-sided conversation or immersion in obscure topics. (Read more about the idiosyncrasies of communication in Chapter 5.) Students like these should not be considered “low functioning,” even though their outward appearance demonstrates such obvious challenges. Don’t underestimate them! These students who exhibit their symptoms externally may be cognitively and creatively strong or even brilliant; they may be experts in a narrow area of knowledge or proficiency or even excellent all-around students.

Alternatively, some students on the spectrum struggle with challenges that are primarily internal. They may present rather typically at first, able to engage in wholly appropriate greeting rituals or brief encounters. They may be articulate, intelligent, and coherent in basic conversation; their bodies may be calm and composed. Students like these should not be considered “high functioning” even though they do not present external challenges. Don’t overestimate them! Inside, their cognitive processes may be deeply disorganized, their receptive language severely limited, their minds profoundly preoccupied with rigidly restricted, repetitive topics. They need more support and patience than you might expect.

ASD: Getting the Big IDEA

Some students on the autism spectrum arrive at your school with a diagnosis in hand and a roadmap in place. They may have received many years of special education
support and individualized services before coming to you. Other students may come
to you having fled or been booted from a prior placement that wasn’t a good fit. Oth-
ers arrive with no diagnosis or classification at all.

Some of them may have managed to get by without special supports or special
education in previous placements. Many students on the autism spectrum can pass
under the special ed radar during the early elementary years because they are articu-
late and bright enough to function independently at school. Yet as they move through
the elementary years, the curriculum begins to require abstraction and higher-level
thinking, and socialization begins to demand spontaneity and reciprocity. So, in the
mid- to late-elementary years, what was seen as “quirkiness” devolves into “dysfunc-
tion,” and the academic and social gaps become too wide to overlook.

Whether the students you work with are already known to be on the spectrum, or
your teachers are just beginning to suspect that they are, you can be sure they will need
more support than do typical students. Fortunately, there are many federal, state, and
district guidelines and systems that exist to help.

In 1997, the Individuals with Disabilities Education Act (IDEA; formerly the Edu-
cation for All Handicapped Children Act) guaranteed students with disabilities a free
and appropriate public education (FAPE) in the least restrictive environment (LRE).
In 2004, the reauthorization of IDEA went further, requiring that schools provide
children who have special needs with an education equal to that of their typically
developing peers.

In 2017, the U.S. Department of Education amended IDEA to align it with the
newly authorized Every Student Succeeds Act (ESSA; formerly No Child Left
Behind). Today, that amended version of IDEA requires that states establish per-
formance goals for students with disabilities that are aligned with the goals of their
typical peers and report their progress on standardized tests. Further, the law con-
tains provisions designed to increase graduation rates and decrease dropout rates.

As the ideals of IDEA have evolved over the years, their interpretation and appli-
cation have evolved as well. As recently as 2017, in the case of Endrew F. vs. Douglas
County School District, the U.S. Supreme Court ruled in favor of a higher standard of
education for students with special needs by clarifying the FAPE mandate. Whereas
“free, appropriate public education” had previously been interpreted loosely enough
to allow the education of these students to be only marginally appropriate, the word
“appropriate” would now require schools to consider individual students’ strengths and challenges and to write and follow an individualized education program (IEP) with objectives that are ambitious in light of individual students’ circumstances (U.S. Department of Education, 2017).

These changes signaled clearly to the education world that it was time to start thinking outside the self-contained classroom. As a result, today, students on the autism spectrum, along with those who have other learning challenges, populate our mainstream schools and general education classrooms in record numbers. In fact, the most recent data show that 91 percent of students on the autism spectrum attend mainstream (i.e., not exclusively special ed) schools, with a plurality spending at least 80 percent of their school day in general education/inclusion classrooms (U.S. Department of Education, 2019). In response to this influx of students with special needs into general education settings, educators continue to cast around for education models that best serve all students—with and without special needs—and best serve their teachers, families, schools, districts, and communities. Welcome to the era of inclusion.

**Leading the Way to Successful Inclusion**

Public school options for students with special needs have evolved in both name and practice. What used to be **mainstream schools** are now **inclusive schools**. What used to be **self-contained classes** and **mainstream classes** have morphed into **special classes** and **inclusion classes**, respectively. What used to be **mainstreaming**—that is, students on the spectrum visiting a mainstream class occasionally—is now all about weaving these students into the fabric of a diverse class full time, with plenty of support and differentiation. What used to be a system of exclusion is now a system of inclusion. And what used to be a clear-cut separation between general education and special education is now quite a bit more fluid.

**A Measured Approach to Meeting Needs**

The first approach teachers take to address the skill or performance challenges of students is RTI (response to intervention). Referenced in the 2004 reauthorization of IDEA, RTI directs teachers to collect data over time, intervene and adjust instruction as needed, and monitor responses—all according to a tiered system. Today,
RTI is generally subsumed within the broader system known as MTSS (multitiered systems of support). These tiered approaches are much more proactive and productive than the wait-to-fail approach (or, effectively, the wait-to-fail response) that preceded them.

RTI is a proactive, evidence-based approach to identifying and supporting struggling learners by closely measuring the progress of all students and providing targeted, leveled intervention. While RTI is not federally mandated, it is being implemented to some extent in at least 94 percent of school districts across the United States (Belisle, 2017).

Using RTI, general educators can conduct a Tier 1 universal screening to assess the skill levels of all students. Through this screening, some students will be identified as below grade level in reading or math. Those students will be provided with supplemental instruction during the school day in an effort to help them meet grade-level expectations.

Students who do not achieve adequate progress after approximately eight weeks of Tier 1 supplemental intervention are moved to Tier 2. This level of intervention includes more intensive and targeted support that is matched to individual need. Tier 2 support is usually provided in small group settings that are supplemental to the general classroom setting.

If adequate progress is not demonstrated with Tier 2 supports after a full marking period, Tier 3 intervention may be indicated. Tier 3 interventions are more individualized, intensive, and comprehensive than those provided at Tiers 1 and 2. Students who do not demonstrate progress as the result of Tier 3 interventions are to be referred for an evaluation for special education eligibility, at which point data from Tier 1, 2, and 3 interventions are taken into consideration.

It is important to note that an active RTI process does not preclude parents or guardians from requesting and being granted a special education evaluation at any time during the RTI interventions.

The Special Education Evaluation

To initiate a special education evaluation, schools must have a written request or consent from a parent or guardian. Teachers or school counselors should explain the evaluation process to parents or guardians, framing the referral as a means of
determining the best ways to support the child’s success. Parents and guardians are often wary of special education evaluations for a variety of practical and emotional reasons. (See Chapter 8 to learn what that resistance is about and to collect strategies for guiding and supporting parents and guardians along the way.) Be sure to assure them that evaluations are conducted individually and confidentially and can be provided by the district at no cost to the family.

Special education evaluations usually include most or all of the following individual assessments.

**Psychological evaluation.** A psychologist assesses a student’s intelligence (according to IQ testing), emotional functioning, and coping skills. The psychologist or other clinical professional may also meet with parents or guardians to assemble a social history—also known as a *psychosocial evaluation*—in order to collect information about birth and family history, developmental milestones, and living circumstances, as well as prior schooling, interventions, therapies, and any other salient events in the student’s life.

**Educational evaluation.** An educational evaluator looks at academic achievement in terms of broad and specific math and reading skills. These skills are scaled according to age- and grade-equivalency norms.

**Physical and occupational therapy evaluations.** A physical therapist assesses gross motor skills (e.g., climbing stairs, jumping, running). An occupational therapist assesses fine motor skills (e.g., gripping a pencil, cutting with scissors, manipulating small objects) and sensory integration, which is the way sensory input is received in the brain. In many cases, a student’s overall academic or behavioral functioning may be significantly compromised by matters of coordination or sensory integration. (Learn more about motor issues and sensory integration in Chapter 4.)

**Speech-language evaluation.** A speech-language therapist or pathologist evaluates a student’s ability to receive and express information via the use of speech and language. Challenges in this area can include forming letter sounds, word retrieval, auditory processing, and social language. Even students who are quite articulate can have significant delays or distortions in their processing and use of language. Conversely, students who have very limited speech may in fact have strong language comprehension skills that might easily be overlooked. Students on the autism spectrum in particular may have excellent speech skills but struggle with the pragmatic
or interactive aspects of language. Challenges in any of these areas can indicate the need for speech and language support. (See more on communication in Chapter 5.)

**Decisions about Service Provision**

When all evaluations have been completed, a meeting of the multidisciplinary or special education evaluation team is convened to synthesize all results. In this way, a complete picture of a student’s functioning is painted in terms of strengths, challenges, and needs, and a plan of action is formulated. Generally, these meetings include a classroom teacher, the student’s parents or guardians, all contributing evaluators, a representative special education teacher, a psychologist, the committee chair, and sometimes other relevant professionals or members of the community.

The goal of the evaluative process is to ensure that every student has access to a free, appropriate public education. If the process determines that a student’s current education program is not appropriate to meet their needs, program placement must be changed, or modifications and accommodations must be enacted in accordance with the regulations laid out in IDEA. As a result of this process, an assortment of the following mandates may be enacted.

**Mandated Plan Options: 504s and IEPs**

Students who are found to have a discrete physical or cognitive challenge that directly impedes their ability to function at school (e.g., challenges related to walking, breathing, seeing, hearing, speaking, writing, reading) may qualify for a Section 504 accommodation plan under the Americans with Disabilities Act (ADA).

The ADA, which is a civil rights statute, protects individuals from impairment-based discrimination. A 504 plan is individually crafted by the team according to ADA regulations and grants students certain accommodations, such as preferential seating, large-print text, a ramp into the school building, and assistive technology to allow them equal access to education. With the playing field essentially leveled in these ways, these students would be expected to be able to reap the full benefit of their education program.

An individualized education program (IEP), on the other hand, is reserved for students who need more than a leveled playing field; they need an *adapted* playing field. Preferential seating or large-print texts would not be enough to give these students equal access to education. Instead, the evaluation team may determine that a
student requires special education supports and services, as specified by the IDEA, in order for them to learn and function in the education setting. All provisions that might have been granted in a 504 plan can be included under the broader reach of an IEP. Given the pervasive symptomatology of ASD, most students on the autism spectrum qualify for an IEP.

In an IEP, the team can mandate a type of classroom or school program and a student/teacher ratio, the frequencies and student/teacher ratios of related services, and specific program accommodations and modifications (as described below). The team also establishes short-term benchmarks and long-term goals for every aspect of a student’s program. The IEP becomes a blueprint for the student’s learning environment and must be followed closely and updated every year. It is the responsibility of the student’s teachers and other team members to uphold the mandates of the IEP and to monitor progress toward the IEP goals. The IEP requires educators to

- Actively pursue the acquisition of academic, social, and behavioral benchmarks with an eye toward long-term goal achievement.
- Oversee the implementation of accommodations and modifications.
- Keep careful data regarding progress and concerns.
- Stay alert to specific conditions or circumstances that affect the student’s ability to function.
- Facilitate collaboration and continuity among all members of the team, including the family.
- Report on the student’s progress at multidisciplinary team meetings.

**Accommodations and Modifications**

Members of the multidisciplinary or special education team also recommend specific accommodations and modifications for students who have 504 plans and IEPs. Most districts use computer programs that generate 504 and IEP templates and offer menus from which to select appropriate accommodations, modifications, and relevant academic goals. All of these options are considered and discussed by the team before they are approved and entered into the official document.

*Accommodations* are changes made to a student’s program to enable equal *access* to instruction or assessments. Accommodations do not alter the curriculum; they serve
only to reduce the effect a disability has on the student’s capacity to access education. Accommodations can be granted in various areas, including the following:

- **Presentation of information.** Accommodations in this area include “talking textbooks,” “directions read and clarified,” and “class notes provided.”
- **Provision of response.** Accommodations in this area include allowing students to dictate and record answers for assessments, access to spell check, a calculator, and other assistive technology.
- **Setting.** Accommodations in this area include “preferential seating,” “separate location for testing,” and use of sensory tools to support functioning.
- **Timing and scheduling.** Accommodations in this area include extra time to complete work, periodic breaks during work activities, and the opportunity to complete assessments across several days.

Whereas accommodations affect *how* a student learns, modifications affect *what* a student learns. Modifications are changes made to the curriculum itself in order to meet the needs of the student. Common modifications include teaching only select aspects of the curriculum, reducing the amount of class work or homework, or assigning alternate questions or projects.

**Education Settings for Students on the Autism Spectrum**

Federal law dictates that school districts must provide services to students with disabilities in the least restrictive environment (LRE) based on individual needs. This means that students with IEPs must, *to the greatest extent possible*, be granted access to mainstream programming, assessments, learning opportunities, and activities alongside typical students. For every student, the team must consider all placement options, beginning with the least restrictive. When an appropriate placement recommendation is agreed upon, a rationale for the rejection of less restrictive placements must be provided on the IEP.

Education placement options for students on the spectrum range from least restrictive (e.g., the general education classroom) to most restrictive (e.g., home-bound instruction or residential facility). In between lies a wide variety of options mandated on the basis of a student’s specific strengths and challenges. Note that individual states or districts may have different options or use different names and acronyms for the programs described here.
The General Education Classroom

A standard general education classroom is a conventional-size class run by one credentialed general education teacher. This is considered the least restrictive environment for all students. A small percentage of students on the spectrum are able to manage with minimal support in a general education classroom. Often these students will depend on the addition of some related services and accommodations and modifications to help them stay afloat.

Most students on the spectrum qualify for pull-out or push-in related services in conjunction with their program. These individually mandated services may include occupational therapy, speech-language therapy, physical therapy, counseling, consultant teacher support, resource room instruction, and reading support. Related services can be provided in conjunction with any classroom or program placement.

The Inclusion Classroom

The inclusion classroom model places students who have special education needs together with typical students in a conventional-size class, with the significant addition of built-in special education support. The inclusion classroom model often allows students to remain with their typical peers all day, while incorporating a differentiated approach to mainstream curriculum and providing additional classroom support as needed.

Depending on the needs of students, inclusion support can range from classrooms that are co-taught by general and special educators, to the occasional push-in or pull-out support of various special education staff, to a classroom paraprofessional or aide assigned specifically to a student who needs one-to-one support. The most robust version of an inclusion classroom is one that features the full-time collaboration of a credentialed special education teacher right alongside the general education teacher.

Inclusive programs offer the distinct advantage of providing students with special education support in the context of the general population. Many students on the spectrum benefit from this model in terms of academic, social, and emotional development. However, the inclusion classroom is not for everyone. Many students on the spectrum simply cannot function in an environment as stimulating and relatively rigorous as a supported general education setting. (See more about the benefits and challenges of inclusion classrooms in Chapter 8.)
Special and Self-Contained Classrooms

A special class is a small, exclusively special education class with a student/teacher/assistant ratio of 12:1:2 or even 6:1:2, depending on needs and mandates. Such classes offer more specialized instruction and protection from the mainstream than inclusion classes do, but less access to the social modeling of typical peers. In secondary grades, students in special classes navigate the building independently and may be placed in any combination of special classes and inclusive or general education classes on a per-subject basis.

Similar to a special class, a self-contained class is a small, exclusively special education class with a small student/teacher/assistant ratio. But a self-contained class usually provides highly specialized and individualized instruction and an alternate curriculum, and it may follow an autism-related or other specific academic and behavioral protocol, such as TEAACH or applied behavior analysis (ABA). At the secondary level, students who are placed in a self-contained class tend to remain in one classroom and with a single group of classmates for the majority of the day.

Even when students spend most or all of their day in more restrictive classrooms like these, their presence in an inclusive school means that they should still be included in all schoolwide activities and events to the greatest extent possible. Modifications and accommodations may need to be made in order to enable these students to be able to participate, but schoolwide and districtwide activities should be formulated in a way that is specifically welcoming and comfortably accessible to all.

Out-of-District Placements and Non-Public Settings

Some small public school districts that have relatively few students needing special education services establish a system of reciprocity with neighboring districts. In these arrangements, special education services, resources, and funding are shared and available to students in both districts.

However, if a district’s evaluation team determines that the district does not have the ability or capacity to provide the kind of programming a student needs, it may recommend a non-public placement: a privately run, publicly funded special education program. Because all students in this type of program have special education needs, interaction with typical peers is not available. Therefore, non-public placement is considered to be more restrictive than any of those listed above. Non-public
placements can be fully self-contained day schools, residential schools, or hospital- or clinic-based day treatment centers.

Some parents and guardians who are dissatisfied with a public school placement will request a non-public school or other more restrictive placement for their child. When the district affirms that it cannot meet the needs of a student, it takes on the responsibility of paying for the non-public school placement. For this reason, many districts are reluctant to stipulate that they cannot meet the student’s needs in-district. It’s a conflict of interest that is often perceived by parents and guardians as denying their child the right to a FAPE. This frequently leads to bitter disputes between families and school districts and sometimes results in legal action against the district.

To bolster success in any of the settings mentioned, some students may be mandated to receive the support of a full- or part-time, one-to-one paraprofessional or aide. An aide’s role is to provide individual academic, social, and behavioral support. Aides may be appointed to support students on the spectrum in their efforts to engage, attend, communicate, transition, socialize, and modulate their reactions. An aide can be added to any classroom setting; however, the addition of an aide is considered to make any environment more restrictive.

**Most Restrictive Environments**

When a student’s needs are not being met in any of the above environments, school districts are expected to fund placement in a highly restrictive setting. Students who need an immersive, fully self-contained environment can receive academic, emotional, social, and behavioral remediation in a therapeutic boarding school. Students who need clinical support in order to function safely and successfully at school or at home may qualify for placement at a residential treatment center where they receive their education along with intensive clinical intervention and round the clock supervision. Students who are in crisis may qualify for temporary homebound instruction or in-patient psychiatric hospitalization.

**Additional Interventions**

Some students on the spectrum receive therapeutic programming from a very early age. These intensive interventions, provided by public early-intervention programs or private organizations, seek to address global autism spectrum symptoms


Bariso, J. (2018, September 9). There are actually 3 types of empathy. Here’s how they differ—and how you can develop them all. Retrieved from https://www.inc.com/justin-bariso/there-are-actually-3-types-of-empathy-heres-how-they-differ-and-how-you-can-develop-them-all.html


About the Author

Barbara Boroson is the author of *Autism Spectrum Disorder in the Inclusive Classroom: How to Reach and Teach Students with ASD* and has worked in the field of autism education for more than 25 years in clinical, administrative, and advisory capacities. She provides professional development and consultative services nationwide to school districts and parents facilitating successful inclusion, and speaks frequently at conferences of the International Literacy Association, National School Boards Association, National Association of Elementary School Principals, National Association for the Education of Young Children, and ASCD, among others, as well as at many colleges and graduate schools.

Barbara holds an undergraduate degree in writing from Cornell University and a master’s degree in social work from Columbia University. She lives just outside of New York City with her husband. They have two young-adult children and a socially reticent rescue dog, all of whom have inspired them to refine the art of x-treme, differentiated co-parenting.

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