

# Understanding and Supporting the Neurodivergent Student

with Anne Williams

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Print this handout or download the document and then use the text boxes to type notes.

These notes provide additional information and resources for those who want to dive deeper. Black text indicates the material covered in the presentation, and blue text indicates additional information.

#### CONDITIONS

- The presentation provides a basic introduction to a complex subject.
  Neurodiversity encompasses themes of civil rights, social justice, identity,
  self-definition, intersectionality, self-advocacy, inclusion/barriers to inclusion,
  accurate representation, and more. Please see the Works Consulted section
  for additional resources.
- One message of the neurodiversity movement is "Nothing about us without us!" Neurodivergent people want to be central to policy discussions, advocacy, and education efforts. While I, like everyone, have some neurodivergent traits, I identify as neurotypical. By speaking and writing on this topic, I may be offending some people, in which case, I sincerely apologize.
- The presentation and these notes use the phrase "autistic student" or "neurodivergent student." Most educators are familiar with people-first language, emphasizing the person before the condition. It is widely used in educational settings and within legal and governmental documents and policies. However, the neurodiversity community prefers identity-first language, "autistic person" instead of "person with autism." When working with neurodiverse students, asking them what they prefer is best practice.

### **TERMINOLOGY**

- **Anxiety**: A mental health condition characterized by excessive worry, fear, and nervousness that can interfere with daily life and well-being.
- Attention Deficit Hyperactivity Disorder (ADHD): A neurodevelopmental condition marked by persistent patterns of inattention, hyperactivity, and impulsivity that can interfere with daily functioning or development.

- **Autism**: A neurodevelopmental condition characterized by differences in social communication, sensory processing, and behavior patterns, often including repetitive behaviors and intense focus on specific interests. Autism exists on a spectrum, affecting individuals differently.
- **Bipolar Disorder**: A mental health condition characterized by extreme mood swings, including episodes of mania (high energy, impulsivity) and depression (low energy, sadness).
- **Depression**: A mental health condition involving persistent feelings of sadness, loss of interest in activities, and changes in sleep, appetite, and energy levels, often impacting daily life.
- **Dyscalculia**: A specific learning condition that affects an individual's ability to understand numbers, perform arithmetic calculations, and grasp mathematical concepts.
- **Dysgraphia**: A neurological condition that impairs writing ability, leading to difficulties with handwriting, spelling, and organizing thoughts on paper.
- **Dyslexia**: A learning condition that affects reading, spelling, and writing due to difficulties with phonological processing, decoding, and recognizing words.
- **Dyspraxia**: A developmental coordination disorder (DCD) that affects motor skills, coordination, and sometimes speech, making tasks like writing, tying shoelaces, or playing sports more challenging.
- Sensory Processing Sensitivity or High Sensitivity: A trait in which individuals have heightened sensitivity to external stimuli, deeper emotional responses, and a more intense awareness of their surroundings.
- **Intellectual Disabilities**: A term describing significant limitations in cognitive functioning and adaptive behaviors affecting conceptual, social, and practical skills.
- Neurodivergent: A term describing individuals whose neurological development and functioning differ from what is considered typical or neurotypical. See "Neurodiversity."
- **Neurodiversity**: A concept that recognizes and respects neurological differences as natural variations of the human experience. It includes conditions like autism, ADHD, dyslexia, and more, emphasizing that such differences are not deficits but part of human diversity.
- **Neurotypical:** The cognitive, sensory, and social functioning that aligns with dominant societal expectations. It is not a medical or scientific category but a social and statistical norm.

- Obsessive-Compulsive Disorder (OCD): A mental health disorder characterized by persistent, intrusive thoughts (obsessions) and repetitive behaviors or mental acts (compulsions) aimed at reducing distress.
- **Schizophrenia**: A severe mental disorder that affects a person's ability to think, manage emotions, relate to others, and perceive reality, often including hallucinations and delusions.
- Sensory Processing Disorder (SPD): A condition in which the brain has
  difficulty receiving and responding to sensory input, leading to over- or
  under-responsiveness to stimuli such as sounds, textures, lights, and
  movement.
- **Tourette's Syndrome**: A neurological disorder characterized by involuntary movements and vocalizations called tics, ranging from mild to severe.

### INTRODUCTION

"Autism is not an appendage. Autism isn't something a person has or a 'shell' that a person is trapped inside. There's no normal child hidden behind the autism. Autism is a way of being. It is pervasive; it colors every experience, every sensation, perception, thought, emotion, and encounter, every aspect of existence. It is not possible to separate the autism from the person."

"Therefore, when parents say, 'I wish my child did not have autism,' what they are really saying is, 'I wish the autistic child I have did not exist and I had a different (non-autistic) child instead.'

"This is what we hear when you mourn over our existence. This is what we hear when you pray for a cure. This is what we know when you tell us of your fondest hopes and dreams for us: that your greatest wish is that one day we will cease to be, and strangers you can love will move in behind our faces."

With these words aimed at parents delivered at the 1993 International Conference on Autism in Toronto, Canada, Jim Sinclair sparked the neurodiversity movement.

The neurodiversity movement grew within the autism community, influenced by the work of autistic self-advocates who challenged the traditional medical model that viewed autism as a deficit or disease.

Judy Singer, an Australian sociologist, coined the term "neurodiversity" in her 1998 honors thesis. She proposed that neurological differences, such as autism, ADHD, and learning disabilities, are natural human cognitive variations rather than pathologies.

Today, the neurodiversity movement continues to gain momentum and evolve. Within the movement, there is significant debate about the definition of neurodiversity, its scope in terms of which neurological conditions are included or excluded, and approaches to supporting neurodiverse people.

My plan for this session is to outline the core beliefs of the neurodiversity movement to help us develop a foundational perspective. Then, we must consider how neurodiversity fits into the bigger picture of our varied student cohorts and identify when individualized support is necessary. Finally, I want to outline practical strategies for creating inclusive classrooms. These methods are essential for supporting neurodiverse students and improving everyone's learning.

The goal is for you to leave this presentation with three action items you can implement at your school to improve inclusivity and accessibility on your campus.

## UNDERSTANDING NEURODIVERSITY: A FOUNDATIONAL PERSPECTIVE

When people use the term, *neurotypical*, they are referring to the cognitive, sensory, and behavioral functioning that aligns with societal expectations. The term is not a medical or scientific category. It is a social norm.

There is no universally accepted definition of the terms *neurodiversity*, *neurodivergent*, or *neurodiverse*. In general, a neurodiverse person is one whose brain functions differently from the neurotypical norm. Core beliefs within the neurodiversity movement help us understand the meaning and significance of these terms.

At its heart, neurodiversity acknowledges that variations in human cognition (how people think, learn, behave, and interact) are natural and essential aspects of human diversity. These neurological differences are not deficits or disorders we need to fix. Instead, they represent the rich spectrum of human experience.

The neurodiversity community asks us to shift our perspective when discussing disability and neurodivergence. Many of the challenges neurodivergent people face do not stem from their differences in cognition but from societal barriers. When we build institutions, schools, workplaces, and social norms around neurotypical expectations, it can create obstacles that exclude or disadvantage neurodivergent people. In this way, disability is often a product of inaccessible structures rather than inherent limitations.

Another key idea in neurodiversity is that neurological traits exist on a spectrum. There is no clear-cut divide between neurotypical and neurodivergent. Rather, there is a continuum of cognitive functioning and behavioral traits with significant overlap. This idea challenges traditional notions of "normal" and "abnormal" and invites us to rethink how we define ability and intelligence.

Neurodivergent individuals do not want others to reshape them to fit neurotypical norms. They want people to value them for who they are without the pressure to conform. Their unique perspectives, strengths, and talents enrich society in countless ways, such as the creative arts, analytical thinking, problem-solving, and innovation. By embracing neurodiversity, we create a world where people don't view different ways of thinking as deficits but as assets.

## Who is Considered Neurodivergent?

Again, there is no universal agreement on which conditions fall under the neurodivergent umbrella. While some neurological differences are widely recognized as part of neurodiversity, others remain debated.

- Commonly Accepted as Neurodivergent: Conditions such as autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), dyslexia, dyscalculia, dysgraphia, dyspraxia, and Tourette's Syndrome are broadly accepted as neurodivergent. These involve cognitive and neurological differences that affect thinking, learning, behavior, or sensory processing.
- Sometimes Considered Neurodivergent: Other conditions, such as intellectual disabilities, mental health conditions (e.g., anxiety, depression, bipolar disorder, schizophrenia, obsessive-compulsive disorder), sensory processing disorder, and high sensitivity, are sometimes included under neurodiversity. Perspectives vary depending on whether the focus is on cognitive diversity or medical classification.
- Everyone is Neurodivergent: Some argue that the concept of "neurotypical" is misleading, as all human brains are unique. This perspective challenges the binary of neurotypical versus neurodivergent, instead viewing cognition as a spectrum. Traits associated with autism or ADHD, such as hyperfocus, sensory sensitivity, impulsivity, or distractibility, are present to some degree in anyone in the general population. Similarly, experiences of anxiety or depression can temporarily influence cognition and behavior.

# **Neurodivergent Traits (Alphabetized)**

As educators, it can be helpful to recognize the cognitive and behavioral traits associated with neurodiversity. Though we don't want to diagnose students or make assumptions about their neurodiverse or neurotypical status.

These traits vary in how they present in each individual. They can be strengths or challenges depending on the context. Read through this list and place a checkmark next to any you recognize in yourself:

Alexithymia: Difficulty identifying and describing one's own emotions, which can affect emotional regulation.
<b>Auditory Processing Differences:</b> Difficulty distinguishing similar sounds, filtering background noise, or processing spoken instructions quickly.
<b>Cognitive Flexibility:</b> The ability to shift between different ideas, tasks, or perspectives.
<b>Detail-Oriented Thinking:</b> The trait of noticing fine details that others may overlook, which can be advantageous in research, analysis, or creative work
<b>Difficulty with Phonological Processing:</b> Trouble breaking down or manipulating sounds, common in dyslexia and affecting reading development.
<b>Difficulty with Sequential Learning:</b> Struggling to learn information step-by-step, instead preferring holistic, web-like, or big-picture understanding.
<b>Difficulty with Social Cues:</b> Challenges in reading body language, tone of voice, or implicit social rules.
<b>Difficulty with Task Initiation:</b> Struggling to start tasks, even when motivation is present.
<b>Difficulty with Time Perception:</b> Trouble estimating time, managing schedules, or understanding time intervals.
<b>Difficulty with Working Memory:</b> Struggling to hold and manipulate information in short-term memory, impacting multi-step instructions or mental math.
<b>Divergent Thinking:</b> Generating multiple creative solutions to problems rather than following a single conventional path.
<b>Distractibility:</b> A tendency to be easily pulled away by external stimuli or internal thoughts, making sustained attention difficult.
<b>Echolalia:</b> Repeating words or phrases, which can serve as a way to process language or communicate.

<b>Emotional Regulation:</b> Some experience emotions intensely and may struggle with sudden emotional shifts, while others may have difficulty identifying or expressing emotions in ways that neurotypical people expect.
<b>Expressive Language Challenges:</b> Difficulty organizing thoughts into speech or writing, even when understanding is strong. In some cases, people may be non-speaking.
<b>High Empathy:</b> Experiencing deep emotional resonance with others' feelings, sometimes leading to emotional overwhelm. Some neurodivergent people don't demonstrate empathy in neurotypical ways, leading to the myth that they lack empathy.
<b>Holistic Thinking:</b> Seeing the big picture before focusing on details, which can be an asset for complex problem-solving.
<b>Hyperfocus:</b> The ability to focus intensely on a specific task or topic for extended periods, sometimes to the exclusion of other responsibilities.
<b>Hyperlexia:</b> Advanced reading ability in young children, often without full comprehension.
<b>Hyperverbalism:</b> Talking excessively, often in deep detail about interests.
<b>Impulsivity:</b> Acting quickly without considering consequences, sometimes leading to risk-taking or difficulty following structured tasks.
<b>Interoception Differences:</b> Difficulty sensing internal body signals like hunger, thirst, pain, or emotional states.
<b>Literal Thinking:</b> Interpreting language in a concrete way, which can lead to misunderstandings with idioms, metaphors, or indirect communication.
<b>Monotropic Focus:</b> Deep focus on a narrow range of interests, common in autism.
<b>Motor Coordination Differences:</b> Variability in fine or gross motor skills, which may include clumsiness, difficulty with handwriting, or challenges in sports and activities requiring precise movement.
<b>Nonlinear Thinking:</b> Thinking in a web-like, associative manner rather than following a straight, step-by-step process.
<b>Proprioceptive Differences:</b> Challenges with spatial awareness, leading to clumsiness or difficulty gauging force.
<b>Rapid Thought Processing:</b> Thinking quickly and making fast connections between ideas, which can be beneficial for problem-solving but may also make it hard to slow down and explain thoughts in a step-by-step manner.
<b>Rigid Thinking:</b> Preferring routines, consistency, and structured environments; difficulty adapting to change.

<b>Sensory Sensitivity:</b> Heightened sensitivity to sounds, lights, textures, or other sensory inputs, which can be distracting or overwhelming.
<b>Slow Cognitive Processing:</b> Taking longer to process and respond to information, often requiring additional time to formulate thoughts or complete tasks.
<b>Stimming:</b> Repetitive behaviors like rocking, humming, tapping a foot or pen, twirling hair, doodling, or pacing. All humans use "stimming" to some degree for self-regulation and emotional comfort.
<b>Strong Creative Thinking:</b> Generating innovative ideas and making unexpected connections between concepts.
<b>Strong Long-Term Memory:</b> Exceptional recall of detailed facts, events, or learned information, sometimes from many years ago.
<b>Strong Moral or Ethical Code:</b> A deep sense of fairness, justice, or personal values, sometimes leading to frustration when others do not follow the same principles.
<b>Strong Pattern Recognition:</b> An ability to notice patterns, trends, and relationships in information quickly, useful in areas like mathematics, music, and problem-solving.
<b>Tactile Sensitivity:</b> Strong aversion to certain textures, clothing, or physical touch.
<b>Task-Switching Challenges:</b> Difficulty shifting between different topics, tasks, or perspectives.
<b>Verbal Fluency:</b> A strong ability to articulate thoughts and express ideas eloquently.

Did you check off at least one trait?

This activity highlights something important. Neurodivergent traits are not rare. Many of the cognitive and behavioral traits we associate with neurodiversity are things that some or all of us experience. Some people experience them more intensely, more frequently, or in ways that impact their daily lives.

# **Neurotypical Traits (Alphabetized)**

A discussion of neurodivergent traits raises the question, "What are neurotypical traits?" because most people will have several traits classified as neurodivergent.

Neurotypicality is the cognitive, sensory, and social functioning that aligns with dominant societal expectations. It is not a medical or scientific category but rather a social norm. Place a checkmark next to the neurotypical traits (alphabetized) you recognize in yourself:

rhythms, eye contact, and expected facial expressions.
<b>Average Processing Speed:</b> Cognitive tasks, verbal responses, and learning generally occur within the expected speed range (e.g., simple verbal responses within 600 milliseconds, short sentence responses within 2 seconds, complex verbal responses within 5 seconds).
<b>Balance Between Detail and Big-Picture Thinking:</b> Ability to shift focus fluidly between broad concepts and fine details.
<b>Consistent Time Perception:</b> Ability to estimate and track time reliably without external reminders.
<b>Conventional Empathy Expression:</b> Tendency to express empathy in expected verbal and nonverbal ways, such as mirroring emotions and offering socially recognized forms of support.
<b>Emotional Modulation:</b> Emotions are typically expressed in ways that align with social norms, without extremes of intensity or difficulty identifying feelings.
<b>Flexible Social Norm Adaptation:</b> Comfort with adjusting behavior to fit varying social settings and implicit expectations.
<b>Holistic Sensory Processing:</b> Ability to filter out background sensory information without significant discomfort.
<b>Implicit Understanding of Social Cues:</b> Ability to intuitively read facial expressions, tone of voice, and indirect language.
<b>Linear Learning Preference:</b> Preference for step-by-step learning rather than web-like or associative thought processes.
<b>Mild Sensory Responsiveness:</b> Sensory experiences (light, sound, touch) are typically experienced within a tolerable range without extreme discomfort.
<b>Moderate Pattern Recognition:</b> Ability to recognize patterns and trends but without excessive fixation or hyper-focus.
<b>Natural Cognitive Flexibility:</b> Ability to shift between tasks, ideas, and perspectives without significant difficulty.

- Predictable Task Initiation: Starting tasks without requiring external motivation strategies or specific environmental conditions.
- □ **Proportional Emotional Reactions:** Emotional responses generally align with external stimuli and social expectations.
- □ **Stable Attention Regulation:** Ability to focus for typical durations without extreme distractibility or hyperfocus.
- □ **Standard Motor Coordination:** No significant variations in fine or gross motor skills beyond typical developmental differences.
- ☐ **Tendency for Literal and Inferential Thinking:** Comfort shifting between literal understanding and implied meanings.
- ☐ **Typical Executive Functioning:** Managing schedules, completing tasks, and organizing information without frequent external support.
- ☐ **Typical Verbal Communication**: Speech patterns, tone modulation, and conversational flow align with societal expectations.

What you might notice this time around is that you can't check off everything. Most of us will leave several items unchecked. As we discussed earlier, many neurodiversity advocates argue that the concept of "neurotypical" is misleading, as all human brains are unique.

#### SUPPORTING ALL MASSAGE STUDENTS

These statistics combine several national research findings and student surveys related to student experiences in post-secondary education. The ranges occur because of differences in diagnostic criteria, reporting practices, and study methodologies.

- Autism spectrum (1.5–2%)
- ADHD (2–8%)
- Dyslexia (5–10%)
- Depressed (22–23%)
- Self-reported anxiety (62% report overwhelming anxiety)
- Treated for anxiety disorders within the last 12 months (22.1%)
- Research estimates for the total number of neurodivergent students in postsecondary education (19-30%)
- Total self-reported neurodivergent (10–30%)

Post-secondary students can also face challenges due to life-stressors such as:

- · Academic pressure and workload
- Financial stress and student debt
- Transportation to and from school
- Time management challenges
- Social isolation and loneliness
- Adapting to independent living
- Managing relationships and social expectations
- Navigating career uncertainty and job prospects
- Coping with failure or academic setbacks
- Maintaining physical health and well-being
- Dealing with cultural or identity-related challenges
- Holding down a job while in school
- Learning new technology
- Meeting institutional requirements
- Adjusting to different teaching styles and expectations
- Taking care of children or aging parents

Many students in post-secondary education require individualized support to succeed. Simple adjustments in the way we structure content, facilitate lessons, and interact with students can help remove many barriers, making education more accessible for all. However, some students require highly specific forms of support that can only be determined through collaboration with the student and/or their advocates. This is particularly true for neurodiverse students, whose needs may vary widely and require personalized strategies.

To effectively support students, every school must have a structured process for identifying those who need assistance and institutional mechanisms to connect them with the necessary resources. A proactive approach can make a significant difference in student retention, success, and overall classroom dynamics. At Ashmead College, where I served as Director of Education, we implemented a high-risk student alert system that proved highly successful. The moment a student exhibited concerning behaviors, such as excessive absences, failure to complete assignments, or a quiz grade of D or lower, their instructor initiated an alert. This involved filling out a simple form available in the faculty room and submitting it to both me and our student counselor.

Upon receiving an alert, we acted immediately to assess the student's situation and provide appropriate support. In some cases, the issue was external, such as challenges with child care, transportation, or housing. Other times, the student required academic intervention, necessitating an individualized learning plan. This plan typically included a dedicated tutor who not only assisted with assignments but sometimes provided in-class support as well. We were able to fund this initiative through tuition payback programs for exceptional graduates and trained teaching assistants.

Whatever the challenge, our approach was collaborative. We worked closely with the student, their instructor, and any relevant support staff to create a plan tailored to their needs. Monitoring and follow-up were essential components of the system, ensuring that interventions remained effective. In fact, this became the primary responsibility of our student counselor and a major part of my role. The results were undeniable as our attrition rate remained below 5 percent, an achievement nearly unheard of in post-secondary education. Unfortunately, in many schools, the burden of solving student challenges falls solely on instructors. Yet, teachers already face significant demands such as creating lesson plans, managing classrooms, and delivering high-quality instruction. Expecting them to also handle intensive student interventions doesn't work.

If you are a program manager or director of education, advocating for a structured support system is essential. Bring together administrators, faculty, and staff to develop a program that works for your institution. Without a strategic approach to student support, attrition rates will rise, and the core mission of educating the next generation of massage therapists will suffer. Proactive intervention is not just about improving attrition rates, it's about cultivating a successful learning environment for all students.

## STRATEGIES FOR CREATING INCLUSIVE CLASSROOMS

An inclusive classroom is a safe space where all students have an equal opportunity to succeed because instructors are alert to learning barriers and work actively to remove them. In inclusive classrooms, teachers adjust their instructional strategies to accommodate the individuals in their cohorts.

Experts recommend these instructional strategies to create inclusive classrooms that support both neurodivergent and neurotypical students. During the presentation, I highlighted some key methods that can improve learning for everyone. These more detailed notes are in black text while bullet points for the areas I did not discuss provide context.

## 1. Facilitate a Safe and Inclusive Learning Environment

- a. Create policies for the student handbook that outline zero tolerance for discrimination, harassment, microaggressions, or cyberbullying.
- b. Create an orientation module that teaches about cultural competency and diversity and provides respectful communication guidelines.
- c. Decide upon classroom norms as a faculty and discuss ways to establish and maintain norms.
- d. Model inclusive behavior by learning students' preferred names and pronouns.
- e. Learn classroom management skills to establish an impermeable boundary around the classroom as a place for learning.

# 2. Create a Sensory-Friendly Learning Environment

- a. Intentionally minimize sensory distractions to ensure all students can focus on learning and not on noise, harsh lighting, a room that is too hot or too cold, or visual clutter.
- b. Close doors, halt side conversations, and add soundproofing to walls and windows to reduce noise distractions. Allow students who are highly sensitive to noise to wear noise-canceling headphones during independent work.
- c. Use natural light or warm-toned bulbs instead of harsh white light or fluorescents.
- d. Keep the classroom temperature between 68°F and 72°F. Temperatures within this range optimize concentration, attention, and retention while minimizing distractions caused by physical discomfort.
- e. Remove complex wall displays and keep the whiteboard free of stains and smudges to reduce the visual clutter in the classroom.
- f. Ideal color combinations for post-secondary classrooms are soft blue or green colors with warm neutral accents (beige, soft wood tones). Small pops of yellow or orange are energizing, but lots of bright colors can be overwhelming and distracting.
- g. A disorganized or unclean environment (equipment shoved into corners, messy storage areas) creates a subtle but persistent sense of unease, reducing working memory capacity and subconsciously affecting motivation and engagement.

# 3. Create a Flexible Learning Environment

- a. Flexibility is critical for neurodiverse students. For everyone else, research shows that when students have options, they are more engaged, less anxious, and more likely to succeed.
- b. Makeup Classes
  - i. Schedule the dates and times for makeup classes before the term starts and publish them in the syllabus. Ask students to pencil them into their calendars and plan to attend. Feeling that they have some flexibility in the event their car breaks down or they can't find child-care reduces anxiety.
  - ii. Grant full points for make-up quizzes and assignments to remove barriers to success.
  - iii. Give extra credit to students who take quizzes on time or turn in assignments by the deadline.

## c. Participation

- i. Often, we give students one way to participate or respond. They have to sit and listen to a lecture, speak during a peer discussion, write a report on a topic, or take part in an activity by following specific directions.
- ii. Sometimes participation is essential and non-negotiable. For example, standardized tests are far from perfect, but everyone has to pass the MBLEx or something similar. Therefore, students must test using multiple-choice questions to develop their familiarity and comfort with this testing method.
- iii. Can we give students more options?
  - For example, could we allow a student to sit at a back table, wear noise-canceling headphones, and work independently from a study guide instead of participate in a lecture or an activity that may cause them significant stress?
  - 2. Instead of writing a pathology report, could they make you a video presentation instead?
  - 3. During a discussion could they hold up a sign or type their feedback instead of speaking it aloud?
  - 4. When they show resistance to an activity can we be curious instead of determined?
  - 5. We want to invite students to share why they feel resistance and offer them options when it is possible.
  - 6. Often what students share helps us understand when we don't provide enough clear direction or when the assumptions we make are triggers. We can adjust so students don't experience this type of resistance in the future.
  - 7. We can also give students an option to tell us how they want to learn instead. For example, we could say, "What would you like to do instead, knowing this material is critical and you have to learn it to pass next week's quiz? Tell me your plan for learning the content. Make me an offer I can't refuse."

8. Think about ways to give your students options and remove unnecessary obstacles to learning. Be flexible when you can, so you have authority when you need to be firm. Offering choices builds trust, reduces stress, and creates a classroom where all students—neurodivergent or not—can thrive.

## 4. Follow a Structured and Consistent Schedule

- a. Many educators believe they have to mix things up to keep students engaged, so they avoid making a solid plan to let the class progress spontaneously. Both of these strategies hinder adult learning, especially for neurodiverse students.
- b. Instead, follow a consistent schedule and use the schedule in every class unless there is a good reason not to. Adult students—both neurodiverse and neurotypical—thrive on consistency.
- c. Consistency reduces cognitive load so students can use their limited mental resources to learn terms, concepts, and skills.
- d. Inconsistency causes mental fatigue because students have to figure out new routines and cope with the anxiety of not knowing what the instructor will ask of them next.
- e. As part of your consistent class structure, open with a mindfulness activity, chunk your content, take regular movement breaks, and formally close classes.
- f. "The Breath of Arrival" is a **mindfulness activity** I learned from my favorite massage teacher, Mary Bryan. It takes 5 minutes of class time but has a powerful positive impact on learning.
  - i. Directions: After taking attendance, dim the lights and invite students to close their eyes and focus on their breathing. Guide them through a brief meditation, encouraging them to notice bodily sensations, connect with their breath, and acknowledge any stress they may be holding. Then, prompt them to release stressors and shift their awareness toward the purpose of the class. Encourage them to reflect on their goal of mastering the material necessary to become safe and competent massage therapists. Finally, ask students to commit to engaging fully in the lesson to maximize their learning experience.
- g. But you don't have to use this activity. Researchers tell us that any short grounding, centering, or mindfulness activity helps students leave their life stressors at the door, reduce anxiety, feel emotionally calm and connect with the importance of school.

- i. You might adopt a 5-minute yoga or stretching routine, tai chi, journaling, meditation, or a short class discussion to check in on how everyone is doing. If you're not using an opening mindfulness routine now, give it a try and notice how it improves student focus.
- h. Thoughtful educators **chunk their content into segments, usually 20–25 minutes** (because that's how much time you have before students succumb to mental fatigue and struggle with attention allocation).
  - i. Sometimes, you'll take a break after the first part of a learning experience and then return to the second part of the same learning experience. "Movement Moments" are especially useful for this type of segmental break.
  - ii. A movement moment is about turning on a song and dancing it out, standing up and stretching, shake it out, or go for a walk around the classroom. Movement moments reduce mental fatigue and help students refocus.
  - iii. Neurodiverse students may also appreciate an area at the back of the class where they can bounce on fitness balls, move, or take notes at standing desks during lectures.
- i. You may also offer longer breaks at the hour mark or between different types of learning tasks.
- j. **Task-switching** occurs when teachers move immediately from one type of activity (e.g., lecture) to another type of activity (e.g., peer discussion).
- k. Task-switching is challenging for all students but particularly difficult for neurodiverse students. They might struggle to disengage from one cognitive process and reengage with another causing significant cognitive load, increased anxiety, and the potential for frustration and overwhelm.
- I. As educators, we want to use predictable routines for task-switching between learning experiences. This might include processing time to think about what was learned, the use of consistent verbal cues, clear expectations, written or visual directions, or step-by-step directional cuing. Here are best practices for transitioning between learning tasks:
  - Use Predictable Routines for Transitions: Establishing consistent transition signals helps students mentally prepare for a shift in activity. Simple cues such as a verbal announcement ("In 2 minutes, we'll switch to our next task"), a slide with transition instructions, or a brief moment of guided breathing give students time to process the change.

- Provide Clear Expectations: Before transitioning, explain what students will be doing next and what success looks like in the upcoming activity. If moving from theory to practice, for example, clearly outline the steps students will take so they don't feel lost during the shift.
- Allow Processing Time: Jumping too quickly from one learning mode to another can be disorienting. Brief pauses, reflection prompts, or a short break allows students to mentally close out one task before starting another. A moment to identify one or two takeaways from the segment or writing summary statements can help bridge the transition.
- **Use Scaffolding:** Students benefit from visual guides, checklists, or written agendas that outline the sequence of activities. Seeing the flow of the lesson helps them anticipate changes and feel more in control of their learning experience.
- **Use Transitional Activities:** If you're moving from one cognitive demand to another, such as passive listening to active problemsolving, incorporate a short, neutral transition activity. For example, a quick recap, a moment of stretching, or a simple grounding exercise helps reset focus.
- By implementing structured transitions, educators create a smoother, more inclusive learning environment where all students, especially those who find task-switching difficult, can stay engaged and confident in their learning journey.
- m. Finally, it helps to **formally close classes**. This practice helps students consolidate what they've learned during a class and transition smoothly back to their daily lives.
- n. This is beneficial for everyone, but especially important for neurodiverse students who may struggle with abrupt endings. There are a wide variety of ways to formally close classes. One of my favorites is the Four-Q activity I share later in this handout.

# 5. Establish and Maintain Learning Context

- a. Orient students to the broader learning framework (e.g., how does the learning fit into the course, module, subject, and program).
- b. Tie new learning to something students already know.
- c. Pre-teach terminology so students don't have to figure out word meanings during lectures or activities.

## 6. Reduce Cognitive Load and Mental Fatigue

- a. Cognitive Load Theory (CLT) is a model for understanding how the brain processes and stores information and the types of instructional practices that support optimal learning.
- b. Teach no more than seven new terms and three new concepts in an hour of instruction.
- c. Prune content. Get rid of unnecessary details—what must students know? Focus exclusively on must-know content.
- d. Teach in segments of 20-25 minutes, then incorporate a movement or mindfulness break (this increases attention allocation, relieves students with ADHD, supports anxiety reduction, and helps with task switching).
- e. Follow a passive learning experience like a lecture with an active learning exercise like peer discussions or up-on-your-feet activities.

# 7. Use Multimodal Learning Strategies

- a. Multimodal Teaching is when you teach a topic using as many senses as possible. Learning is more robust when different sensory inputs create multiple retrieval pathways in the brain.
- b. We want to teach a topic using several modes. We want the lesson to be visual, auditory, tactile, and involve movement whenever possible.
- c. For example, imagine I'm teaching a lesson on Core Concepts in Ethics.
- d. I'll start with a lecture heavy on visual aids. Students will hear my clear explanations and see the images, diagrams, and mind-maps I use to convey concepts.
- e. Next, I'll use an up-on-your-feet activity where students work in teams to identify ethical and unethical therapist behaviors.
- f. I'll have two spots at the front of the classroom for each team of students. One for ethical scenarios and one for unethical scenarios. On the walls and desks, I'll place different scenarios depicting ethical or unethical behavior. Student teams must move together to different spots around the class where they read and discuss a scenario. When they have consensus from their group, they take the scenario to the appropriate pile. Students work until there are no more scenarios on the walls. Each student on the team with the most correct scenarios gets an extra credit point.
- g. This activity has several peer-learning benefits and involves movement, discussion, and reading.
- h. Next, I'll hold a Think-Pair-Share to process and anchor the learning. Students will think about and write down three key takeaways from the

- exercise, they'll discuss their findings with a peer, and then share in the large group. Writing is tactile while discussion is auditory.
- i. Using these three activities in succession ensures students encode content into memory using multiple senses. Viewing your lessons through a multimodal lens is a great way to increase active learning in your classroom and engage neurodiverse students who may have alternate ways of processing information.
- j. Before we move on, I want to suggest you move to a visual agenda if you're not using one already. Write the lesson agenda on the white board and check off completed items as the class advances. Visual agendas help neurodiverse students anticipate transitions and switch between tasks while giving all students a sense of making progress on learning.

# 8. Use More Scaffolding

- a. Scaffolding refers to the structured support teachers provide students to help them acquire knowledge and skills, perform learning tasks, and get from point A to point B during a class or course.
- b. Scaffolding includes outlines, mind-maps, step-by-step instructions, checklists, graphic organizers, visual aids, facilitated activities, study guides, worked examples, and pre-teaching terminology.
- c. Record lectures and demonstrations and host them online for students to review multiple times and at their own pace. Ensure that the audio is clear and captions or a transcript are provided for accessibility.

# 9. Plan Work Groups and Study Groups Based on Student Strengths and Challenges

- a. Never let students pick their own work groups, study groups, or partners.
- b. Match up academically strong students with academically struggling students.
- c. Provide clear roles and expectations for group work.
- d. Implement communication and group interaction protocols.

## 10. Provide Self-Advocacy and Emotional Regulation Training

- a. Training should teach students to identify and communicate their needs in the classroom.
- b. Training should teach self-advocacy skills for requesting accommodations and support.
- c. Training should teach strategies for managing frustration, anxiety, or sensory overload.

### IN CLOSING

In closing, I want to share the wisdom of humanistic psychologist Carl Rogers (1902–1987). Rogers taught educators to cultivate **unconditional positive regard** (UPR) for their students.

Rogers emphasized that humans have an innate urge toward socially constructive behavior, which is always present and functioning at some level, even when obscured by external challenges. He also highlighted the need for self-determination, which is the act or power of making up one's own mind about what to think or do without outside influence or compulsion.

The more a person's need for self-determination is respected, the more likely their innate urge to be socially constructive takes hold. Self-determination is particularly crucial for neurodivergent students. Many have faced environments that attempted to "fix" or suppress their natural ways of thinking rather than validating their strengths. When we support their autonomy, they are more likely to lean into their intrinsic motivation for learning.

When we cultivate UPR in our classrooms, we recognize that all students are doing their best, even when their behaviors seem counterproductive or challenging. It also helps us to respect each student's right to self-determination, no matter what they choose to do. We give them the space to make choices for their learning preferences and life needs.

We'll extend acceptance even in difficult moments when they are frustrated, disengaged, exhibiting disruptive behavior, or doing their best to undermine or manipulate us. No matter what, we will treat them respectfully.

We know many of our students have often overcome immense challenges to sit in our classrooms. They are juggling multiple responsibilities, are living with limited resources, and are spread thin and stressed out. Showing up may take every ounce of their determination.

Every student—no, every person—just wants to be seen, heard, understood, and valued in just the right way. When we listen deeply and compassionately to student concerns, consider their points of view, stop making assumptions, and do our best to help them overcome challenges, we'll earn their trust.

By practicing **unconditional positive regard**, we create a more inclusive and equitable learning environment that minimizes conflicts and allows students to take risks, ask for help, and engage in learning on their own terms. We'll model the massage values we want our students to practice with clients. Our students will carry forward the legacy of the environment that we create. I hope we help them cultivate their empathy, kindness, and great hearts while we train their great hands!

## **Four-Q Reflections Activity**

In this activity, instructors pose four questions at the end of class to encourage personal reflection or content review. You can use Four-Q Reflections in written activities and small or large group discussions to review concepts, personalize content, apply thinking skills, and promote social learning.

### **Directions:**

- Option 1: Write the four questions on the whiteboard and give students 5 minutes to journal their answers before each student shares their response to one of the questions in the large group.
- Option 2: Place the four questions in a quadrant and give students 5 minutes to write their answers. Use the completed worksheet as an exit pass.
- Option 3: Break students into groups of three to discuss their responses then have a few students share in the big group.

Here are some examples:

## The Four A's

- Aha!: What was your biggest "Aha!" moment today?
- Ask: What questions do you still have?
- Apply: How can you apply what you learned?
- Action: What action will you take due to today's lesson?

## **STOP**

- S: What did you **see** that was new or interesting?
- T: What did you **think** about the material presented?
- O: What **opportunities** do you see for using this information?
- P: What are your **plans** to implement what you've learned?

#### **STAR**

- Situation: Describe the **situation** or context.
- Task: What was the **task** you needed to accomplish?
- Action: What actions did you take?
- Result: What was the outcome or result?

## **The Four Whats**

- What went well today?
- What could have gone better?
- What is the most important thing you learned today?
- What steps will you take to improve?

## **The Four Somethings**

- What's something you found surprising today?
- What's something that made you think differently today?
- What's something that made you smile today?
- What's something you learned today that you'll use right away?

#### Instructor Bio

Anne Williams, BFA, LMT, is the co-founder of Massage Mastery Online, dedicated to creating digital textbooks that make learning more efficient, effective, and enjoyable for massage students. A licensed massage therapist for 28 years, Anne has been a passionate educator, author, and curriculum developer throughout her career and has a deep love for instructional design and adult learning. She is the author of *Spa Bodywork: A Guide for Massage Therapists* and *Massage Mastery: From Student to Professional.* Previously, she served as director of education for ABMP, where she led projects to support schools, instructors, students, and professionals including ABMP Exam Coach, Five-Minute Muscles, and Instructors on the Front Lines training. Anne also led the work group for the Entry-Level Analysis Project (ELAP), setting foundational standards for massage education. Learn more at Massage Mastery Online.

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## Websites with Information for Adult Learners

- Autistic Self Advocacy Network (<a href="https://autisticadvocacy.org/">https://autisticadvocacy.org/</a>)
- Neurodiversity Network (www.neurodiversitynetwork.net/)
- Society for neurodiversity (www.s4nd.org/)