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The Neuroinclusive Classroom Series: Creating Calm & Connected Learning Environments

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LAND ACKNOWLEDGEMENT

We wish to acknowledge this land on which the University of Toronto operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit.

Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.



ACCESS CHECK

Access is a shared responsibility among everyone in this space. While attention has been paid to reduce barriers to participation, I encourage interventions on the following (and more!) to enhance access.

Technology
Space
Pace

“We all have bodies, hearts, and minds. We all have needs and capacities, strengths and vulnerabilities”

- Skin, Tooth, and Bone: A Disability Justice Primer



Agenda

1. Welcome and Grounding Exercise
2. Neurodiversity language and Definitions
3. Anxiety Loops & Reversing Anxiety Loops
4. Relational Frameworks for Calm and Connection
5. Proactive Design Example: Sensory-Friendly Environments
6. Reflection



Session Outcomes



- Become familiar with how stress and sensory factors influence students' ability to remain within a zone for optimal learning.
- Evaluate teaching practices and classroom environments for opportunities to reduce stress and enhance support.
- Apply practical evidence-based strategies to create emotionally and physically supportive learning environments.



Grounding Exercise



5 things you can see



4 things you can touch



3 things you can hear



2 things you can smell

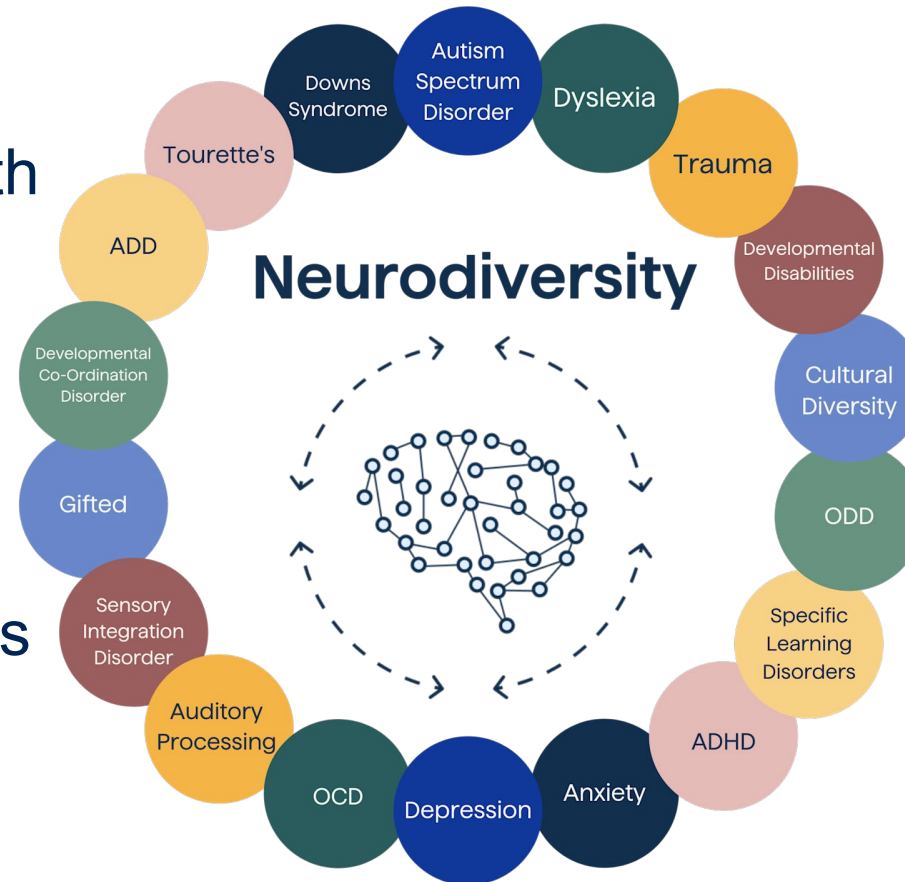


1 thing you feel



What is Neurodiversity?

- People experience and interact with the world around them in many different ways
- No one "right" way of thinking, learning, and behaving, and differences are viewed as strengths not deficits.



Designing for Neurodiversity

Neurodiversity is natural variation with differences in:

- sensory processing
- executive functioning
- communication
- social-emotional regulation
- learning rhythms

Inclusive design should support the widest range of nervous systems, not only the “average” one.



Higher Education Context

Making the Invisible Visible: Neurodivergent Students' Experiences in Canadian Higher Education (2024)

- 1/3 of neurodivergent students do not have a formal diagnosis, which limits access to educational supports and accommodations.
- < 1/2 disclosed identity or diagnosis.

Universities Canada:

- nearly 90% of post-secondary students' report feeling overwhelmed by their responsibilities
- 66% report feeling overwhelmingly anxious. Additionally,
- 75% of students have reported struggling with mental health.

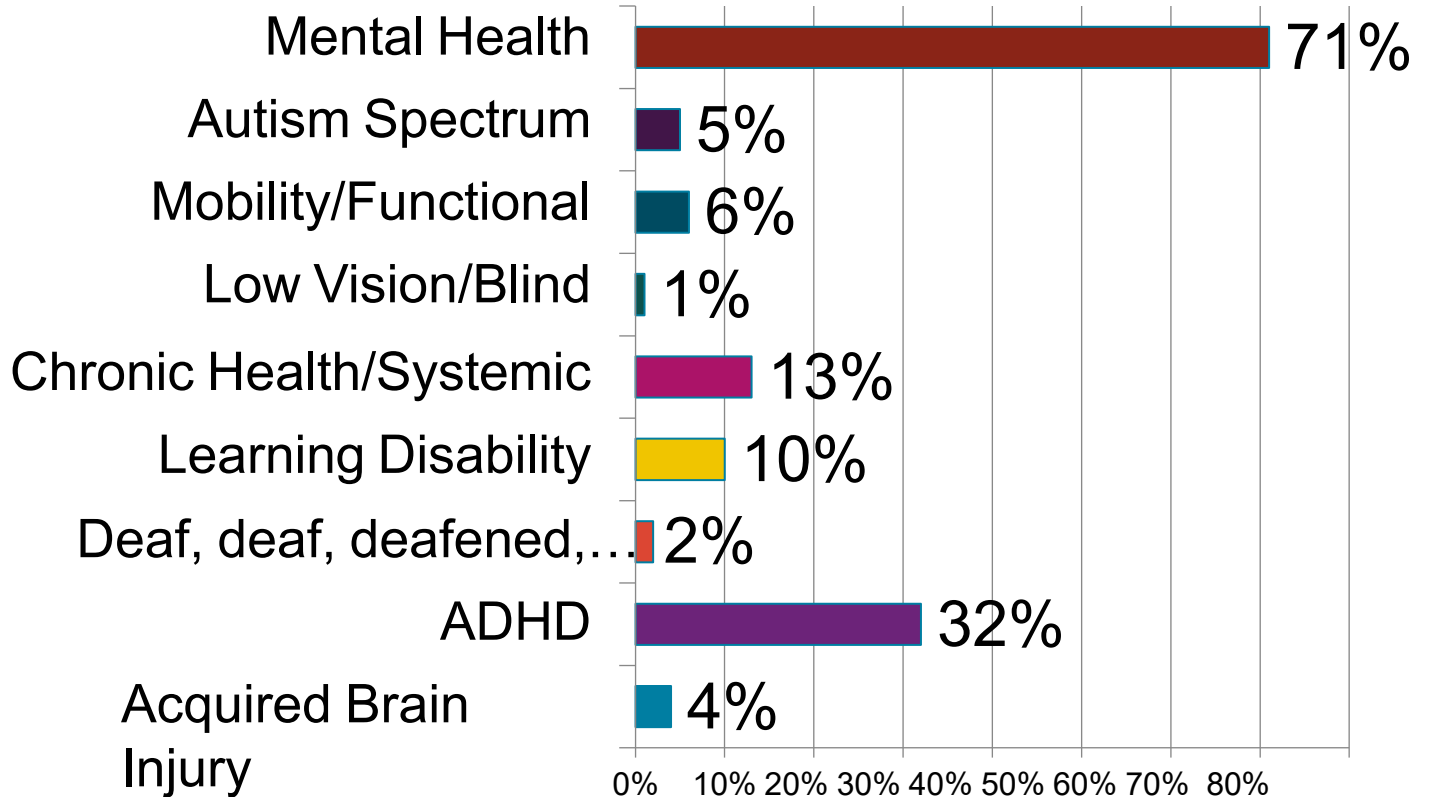


Why do Students Register with Accessibility Services?

2023-2024

Total # of
Registered Students

6041



Note: Numbers are from UTSG and do not add up to 100% because students may be registered with more than one disability.


Duty to Accommodate

The Ontario Human Rights Code guarantees the right to equal treatment in education without discrimination on the ground of disability. The University of Toronto has a duty and is committed to considering accommodations when:

1. Accommodations are requested by a student¹
2. We become aware of a student's accommodation needs in a reasonable time
3. Accommodations do not cause undue hardship to the University

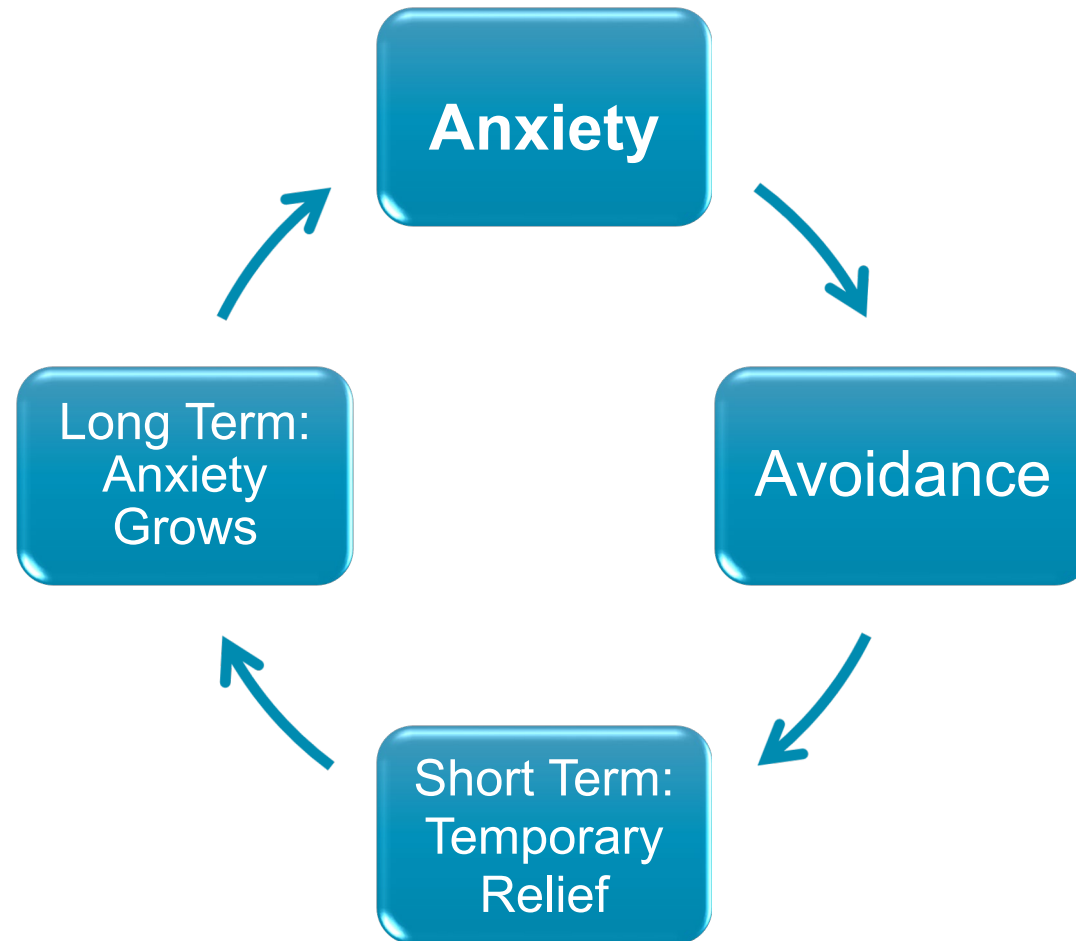
Requests for accommodation are considered in good faith.

¹Usually through the student having documented functional limitations related to their disability that impact their ability to meet core competencies/learning outcomes of a course



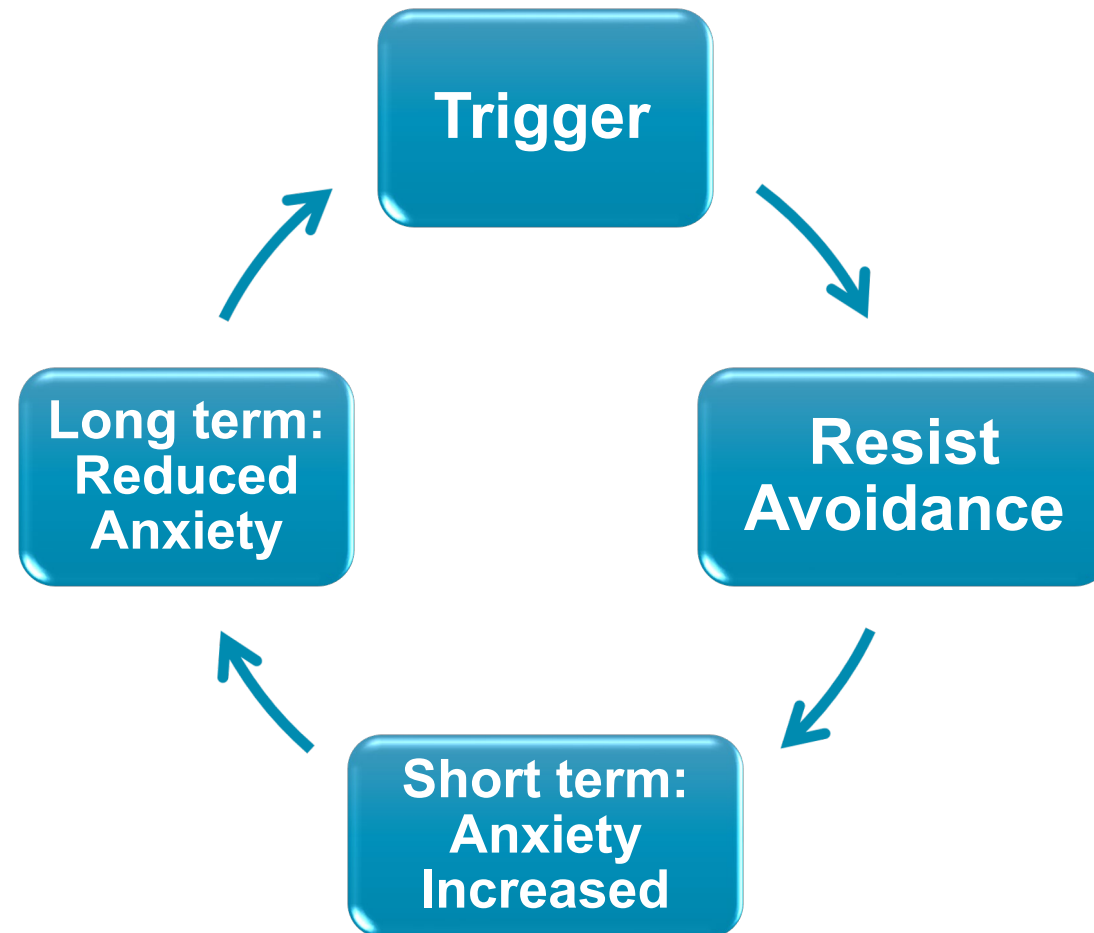
**What else
can we
do?**

Anxiety Loop



Reversing the Anxiety Loop

With extra support...



What extra support?

Nervous System Support

- Warm, predictable openings
- Clear structure & transitions
- Co-regulating behaviors (calm voice, supportive posture)
- Allowing movement/fidgeting without stigma
- Sensory-friendly environments



Window of Tolerance



The diagram illustrates the Window of Tolerance model. It features three horizontal teal bars stacked vertically, each connected to a circular node on the left by a thin line. The top node is a solid teal circle, the middle node is a white circle with a teal outline, and the bottom node is a solid teal circle. The top bar is labeled 'Hyperarousal or Overwhelm' and lists symptoms: 'Fight-or-flight, anxiety, panic, anger, hypervigilance'. The middle bar is labeled 'Window of Tolerance' and lists symptoms: 'Regulated, calm, engaged, ready to learn'. The bottom bar is labeled 'Hypoarousal or Shutdown' and lists symptoms: 'Freeze-or-fawn, depression, numb, dissociative or checked out'. In the bottom right corner, there is a decorative graphic consisting of a green square, a red circle, a blue circle, and a teal square.

Hyperarousal or Overwhelm

- Fight-or-flight, anxiety, panic, anger, hypervigilance

Window of Tolerance

- Regulated, calm, engaged, ready to learn

Hypoarousal or Shutdown

- Freeze-or-fawn, depression, numb, dissociative or checked out

Polyvagal Ladder

Neuroception names the nervous system's subconscious process of detecting safety cues.

Classrooms aren't necessarily 'safe' spaces.
Learning includes discomfort.



Ventral Vagal Zone. Neuroception: Safer, Calm & Connected

Sympathetic Nervous System. Neuroception: Danger

Dorsal Vagal Zone. Neuroception: Life Threat



Why These Models Help Educators

Model	What it explains	How it helps
Anxiety loops	The cycles that keep students stuck	Helps break repetitive patterns of avoidance or escalation
Window of tolerance	Whether the brain is ready for learning	Guides classroom design + moment-to-moment responses
Polyvagal ladder	The specific physiological state	Gives teachers a roadmap to co-regulate and support transitions

Sensory-friendly Environments

Regular offenders: lights, sounds, smells, tastes, touch.

We like to move it, move it: schedule regular movement breaks. Release energy and refocus!

Quiet haven: a designated place for reduced sensory overwhelm when needed.



Proactive Physical Design

Hyper-Responsive

Already stimulated

Soft lighting

Muted colours

Quiet area, away from doors and other noises

Hypo-Responsive

Stimulant seeking

Bright natural light

Colour

Closest to door



Reflection

What's one concrete insight or neuroinclusive strategy that you will take away and/or apply to your teaching?

Can you make one immediate small change to your learning environments to enhance neuroinclusivity in your class?





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Robert Gillespie
Academic
Skills Centre



Thank You!

utm.utoronto.ca/rgasc

References & Resources

[*Making the Invisible Visible: Neurodivergent Students' Experiences in Canadian Higher Education \(2024\)*](#)

[Anxiety Problems Up Among Postsecondary Students](#)

[Deb Dana's Polyvagal Theory](#)

[Window of Tolerance & Staying Within It](#)

[Sensory Processing Classroom Accommodations](#)

