

Functional Impairments 101: What they are, what they aren't, and how they inform accommodations

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Overview

- Introduction
- High-incidence disabilities and their related functional impairments
- Documentation of functional impairments
- Linking identified areas of functional impairment to evidence-based accommodations
- Case study
- Discussion/Questions



Assessment Resource Centres (ARCs)

In 1997, the Ontario government created a Learning Opportunities Task Force (LOTF) to:

- investigate the status of post-secondary students with learning disabilities
- to make recommendations that would enhance access and services for students with specific learning disabilities.

The final report, submitted to the Ontario Ministry of Training, Colleges and Universities (MTCU) in 2002, contained 7 key findings and 24 recommendations. One of the key findings was that:

*"A significant majority of the students arrived at (post-secondary) institutions with no, or at best **inadequate, diagnostic information**. As a result, students had **neither appropriate documentation nor an understanding of their own learning disabilities**. A comprehensive, up-to-date diagnostic assessment is essential for the provision of requisite supports, services, programs and accommodations for students with learning disabilities."*

Learning Opportunities Task Force, 1997 to 2002, Final Report

Assessment Resource Centres (ARCs)

- Since opening in 2002, the ARCs have expanded their mandate to include students with other neurodevelopmental disorders.
- Services focus on supporting incoming and current post-secondary students with neurodevelopmental disorders to help them understand and mitigate the impact of functional impairments in an academic context.



Regional Assessment Resource Centre (RARC)

www.queensu.ca/rarc

Our vision is to enable students with neurodevelopmental disabilities to thrive in post-secondary education.

Services provided under 4 pillars:



Transition



Research



Training



Assessment

Transition Navigator Hub

- With support from the **Ontario Ministry of Education**, we're building the **Transitions Navigator Hub**—a bilingual, online resource designed to support students, families, and educators as they transition from secondary school.
- As a **service provider**, your experiences and insights are essential. We're looking to better understand:
 - What resources are currently supporting students with special education needs;
 - Where the gaps are in student readiness;
 - And what knowledge or tools would make the biggest impact as students choose their next steps after high school.
- **Take our quick 5-minute survey**—available in both **English and French**—to help us create meaningful, practical resources that truly support student success. You are also welcome to share this email and survey link with other colleagues and professionals who may be able to contribute.
- **As a thank you, you can enter a draw to win a \$50 gift card for Uber Eats, Amazon, Starbucks, Tim Hortons, iTunes, or Google Play!**
- **Deadline: July 10, 2025**
- [Survey on Student Transition Resources and Preparedness](#)



High incidence disabilities and their related functional impairments

Overview of High Incidence Disabilities

- Learning Disabilities (LDs)
 - Reading, Writing, and/or Math
- Attention Deficit/Hyperactivity Disorder (ADHD)
 - Inattentive, Hyperactive-Impulsive, or Combined
- Autism Spectrum Disorder (ASD)
- Mental Health Disorders
 - Anxiety
 - Depression



Learning Disabilities (LDs)

The DSM-5 and Learning Disabilities Association criteria look for the following:

- *At least Average thinking/reasoning abilities*
- *History of academic achievement issues*
- *Below Average academic achievement in one or more areas (i.e., reading, writing, math)*
- *Difficulties in reading, writing, or math are logically connected to deficits in cognitive processes*
- *The difficulties are not primarily explained by other factors (e.g., other disorders, insufficient effort, poor instruction, linguistic diversity)*

Signs of a Learning Disability ... Reading

Reading Skill	Example
Basic letter knowledge	Identify letters of the alphabet Produce sounds for letters of the alphabet
Word decoding	Read/say/sound out new words or made-up words
Word identification	Read/say/sound out common, familiar words
Fluency	Read with flow and speed, silently or out loud
Comprehension	Answer questions, on paper or aloud, about what they have read.
Signs of Difficulty or Possible LD in reading: <ul style="list-style-type: none">• Struggle to read new vocabulary, have poor sight vocabulary for familiar, high frequency words• Read in a monotone or read very slowly or with big pauses• Limited understanding of what they read• Avoid reading in leisure time• Avoid reading out loud• Mistake words for similar words• Not sure what test questions are asking or what assignments instructions mean	

Signs of a Learning Disability ... Writing

Writing Skill	Example
Production of letters	Write the alphabet
Sound-symbol knowledge and understanding of basic word structure	Write the correct letter for different sounds
Spelling	Produce orally presented words
Sentence Composition	Write sentences using appropriate punctuation, grammar, and sentence structure
Writing Fluency	Quickly generate and produce sentences
Essay Writing	Organize ideas into writing using an appropriate structure
Signs of Difficulty or Possible LD in writing: <ul style="list-style-type: none"> • Letter reversals (b for d, p for q) • Using limited vocabulary in writing pieces • Avoiding writing activities • Providing better oral answers than written answers • Spelling words how they sound (e.g., “menchin” for “mention”), spells same word several different ways in one paragraph • Slow copying information from a blackboard/whiteboard • Written work requires a lot of editing for spelling, grammar, sentence structure • Run-on sentences, poor use of commas, periods and capitalization 	

Signs of a Learning Disability ... Mathematics

Mathematics	Example
Fluency	rapid recall of basic math facts from memory
Calculation	working out numerical calculations
Applied Problem Solving	applying basic math skills to solve real-world oriented problems
Signs of Difficulty or Possible LD in mathematics: <ul style="list-style-type: none">• Lose track when counting• Use fingers as aids for simple calculations• Struggle to estimate number of items in a group• Poor sense of relative size of numbers• Struggle to understand graphs• Difficulty counting money or making change• Forget or mix up steps in math problems• Poor understanding of fractions• Avoid math-based activities• Poor sense of when calculator has produced a wrong answer	

Attention Deficit/ Hyperactivity Disorder (ADHD)



AD/HD – WHAT IS IT?

- **Attention Deficit/Hyperactivity Disorder (AD/HD)** is the current term for a specific **neurodevelopmental disorder** seen in both children and adults that is comprised of **deficits in attention, behavioural inhibition, and the regulation of activity**.
- ADHD is characterized by developmentally inappropriate levels of inattention, hyperactivity, and impulsivity, that impair a person's functioning.
- Some individuals have problems with all three types of symptoms, whereas others have problems primarily with inattention, or primarily with hyperactivity/impulsivity.
- According to Russell Barkley, a leading researcher within the field of ADHD, the **predominant features** of this disorder include:
 - **Poor sustained attention or persistence of effort to tasks**
 - **Impaired response inhibition, impulse control, or the capacity to delay gratification**
 - **Excessive task irrelevant activity or activity that is poorly regulated to the demands of a situation.**

DSM-5: INATTENTIVE SYMPTOMS

- Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or during other activities
- Often has difficulty sustaining attention in tasks or play activities
- Often does not seem to listen when spoken to directly
- Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace
- Often has difficulty organizing tasks and activities
- Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort
- Often loses things necessary for tasks or activities
- Is often easily distracted by extraneous stimuli
- Is often forgetful in daily activities



DSM-5: HYPERACTIVE-IMPULSIVE SYMPTOMS

- Often fidgets with or taps hands or feet or squirms in seat
- Often leaves seat in situations when remaining seated is expected
- Often runs about or climbs in situations where it is inappropriate
- Often unable to play or engage in leisure activities quietly
- Is often “on the go,” acting as if “driven by a motor”
- Often talks excessively
- Often blurts out an answer before a question has been completed
- Often has difficulty waiting his or her turn
- Often interrupts or intrudes on others



Only Symptoms?

Symptoms are 1 criteria, but must also have:

- Chronicity- evidence before 12
- Pervasiveness- evident across environments
- Clinical significance- causes impairment

Also....

- Other factors that may “mimic” symptoms need to be ruled out

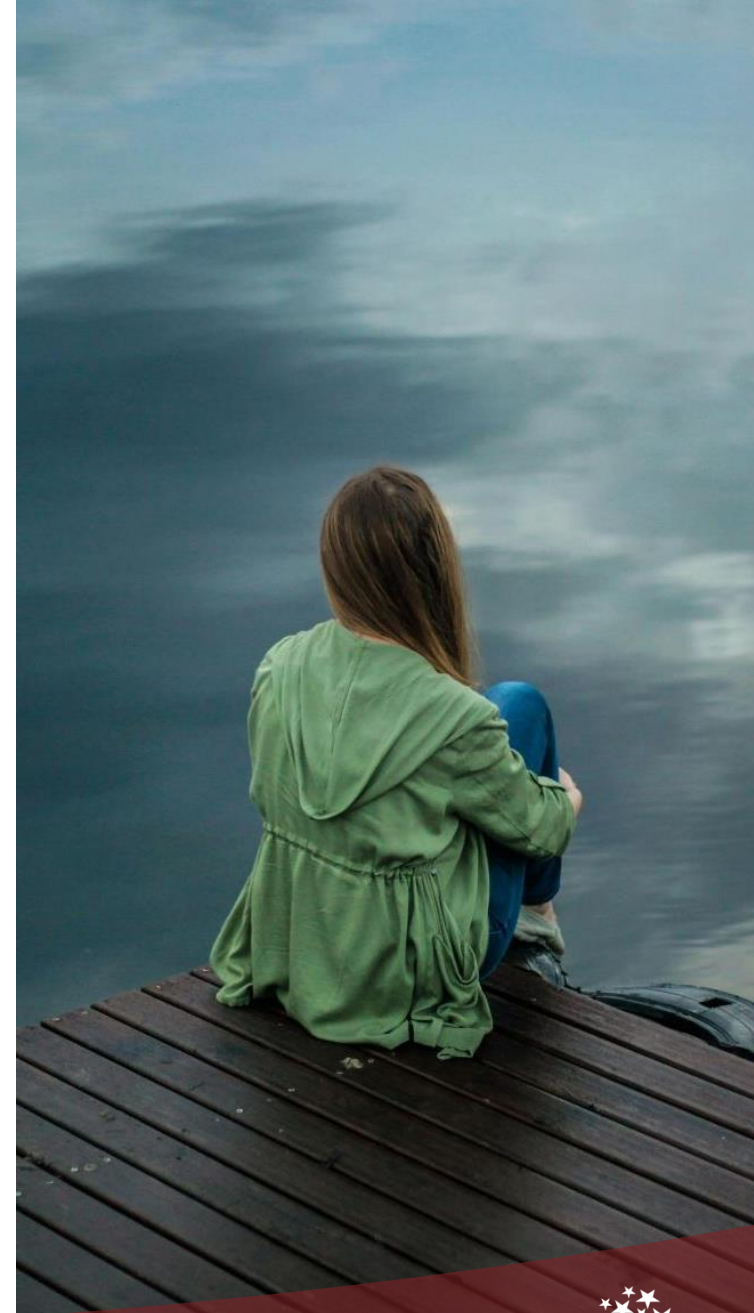


Autism Spectrum Disorder

- Asperger's disorder used to be separate; not anymore
- Need to have evidence of
 - Persistent deficits in **social communication and social interaction** across multiple contexts
 - E.g., difficulty making friends, using nonverbal communication, does not understand “back and forth” of conversations
 - and **restricted, repetitive patterns of behaviour, interests, or activities**
 - E.g., repetitive motor movements, inflexible adherence to routines, fixated interests, hyper/hypo-reactivity to sensory stimuli
- Present when young, life-long, interfering
- Severity based on level of support needed; can be with or without language and intellectual impairment

Mental Health Disorders

- Anxiety
 - Generalized Anxiety Disorder
 - Social Anxiety Disorder
- Depression
 - Major Depressive Disorder
 - Persistent Depressive Disorder

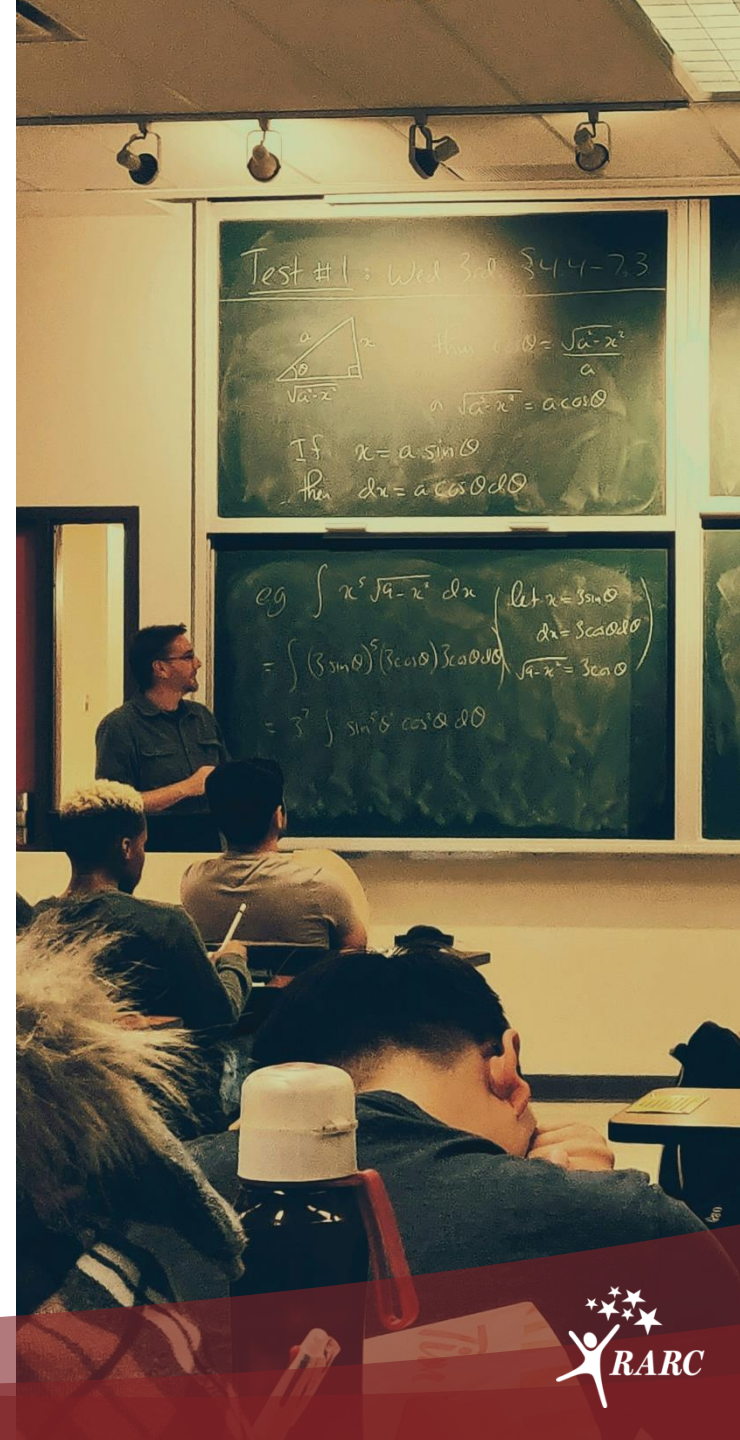


Why do we need some form of
documentation?

How Common Are Academic Problems among College Students without Disabilities?

Weiss et al., 2022 surveyed 1,740 full-time, degree-seeking undergraduates and asked them if they experienced problems in the following academic activities.

What percent of students *without any disabilities* experience problems in each activity *often or always* compared to most people in the general population?



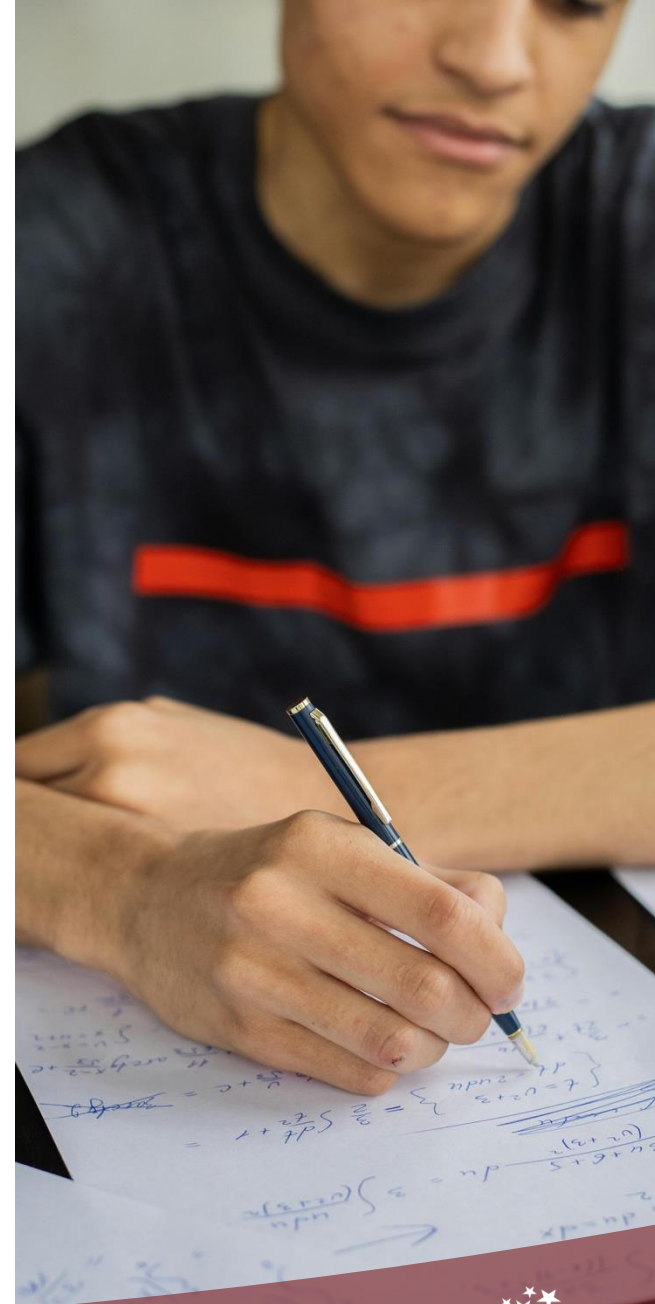
Reading

- Needing to read passages over again to understand them 32.6%
- Identifying the main points in the passages I read 17.3%
- Reading too slowly 11.7%
- Failing tests or classes that require a lot of reading 6.0%
- Mixing up letters or words when reading 5.1%



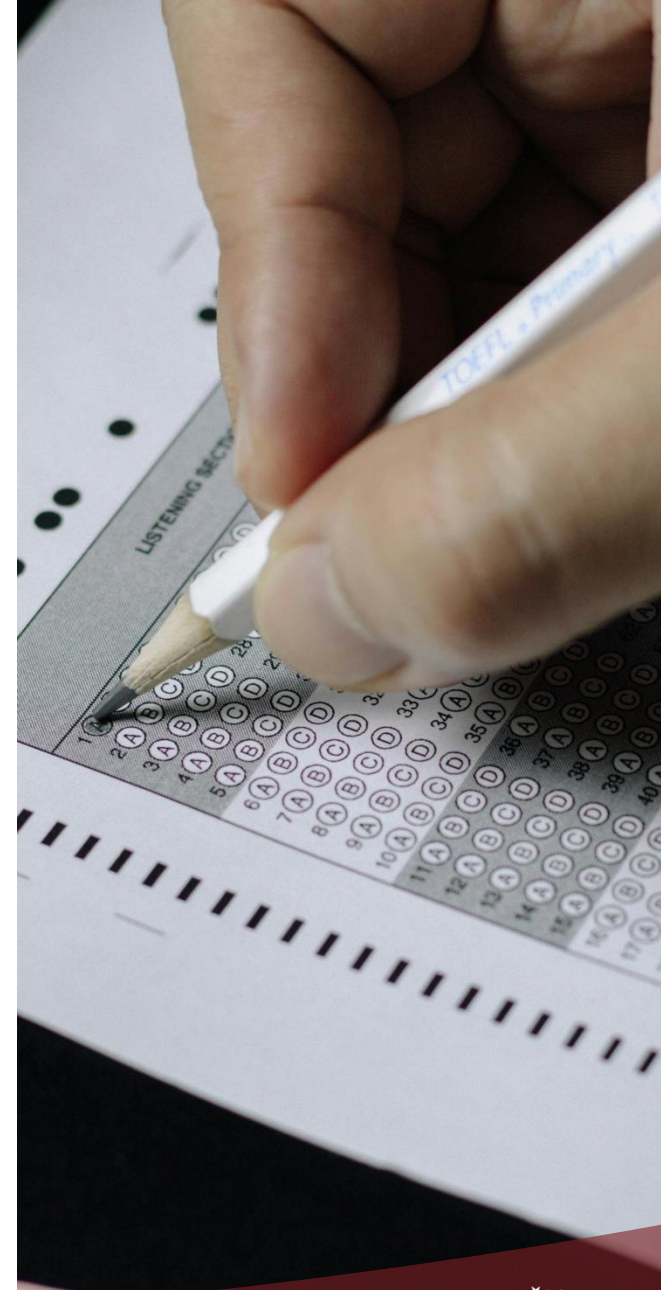
Math

- Needing to check my math calculations over again 36.1%
- Remembering math facts, formulas, or procedures 31.1%
- Understanding or “setting up” math problems 25.0%
- Solving math problems too slowly 22.6%
- Failing tests or classes that require a lot of math 16.3%



Test-Taking

- Having stray or random thoughts during tests 29.3%
- Forgetting information or “freezing” during tests 19.3%
- Getting distracted by noises during tests 16.9%
- Finishing timed tests within the time limit 8.0%
- Losing points on a test because I ran out of time 7.2%



Time Management

- Procrastinating 64.2%
- Getting motivated to study 53.4%
- Cramming for tests 46.0%
- Finishing assignments at the last minute 44.4%



Who will receive accommodations under an approach based primarily on self-reports?

- Students who:
- (1) know that accommodations are available,
 - (2) have the support of family & friends to seek them out,
 - and
 - (3) possess the self-advocacy skills to convince disability professionals that they are necessary.

Waterfield & Whelan (2017). *Disability & Society*



Who is disadvantaged by this decision-making approach?

(1) Students with disabilities who lack this knowledge, support, & skill.

First-generation students

Nontraditional students

International students

Students with communication disorders and/or social skill deficits.

Weis et al. (2021). *J. of Clinical & Exper Neuropsychology*



Documentation of Functional Impairment



What are Functional Impairments?

- The formulation of disability (or “functional impairment”) is currently not operationalized in either the ICD or the DSM.
- According to OSAP, a disability means any impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment—or a functional limitation—that **restricts your ability to perform the daily activities necessary to pursue studies at a postsecondary school level** or to participate in the labour force.
- The Ontario Human Rights Code focuses on the need to accommodate on the basis of functional impairments (**disturbances in performance as a result of a disability**), whether these are permanent or temporary.

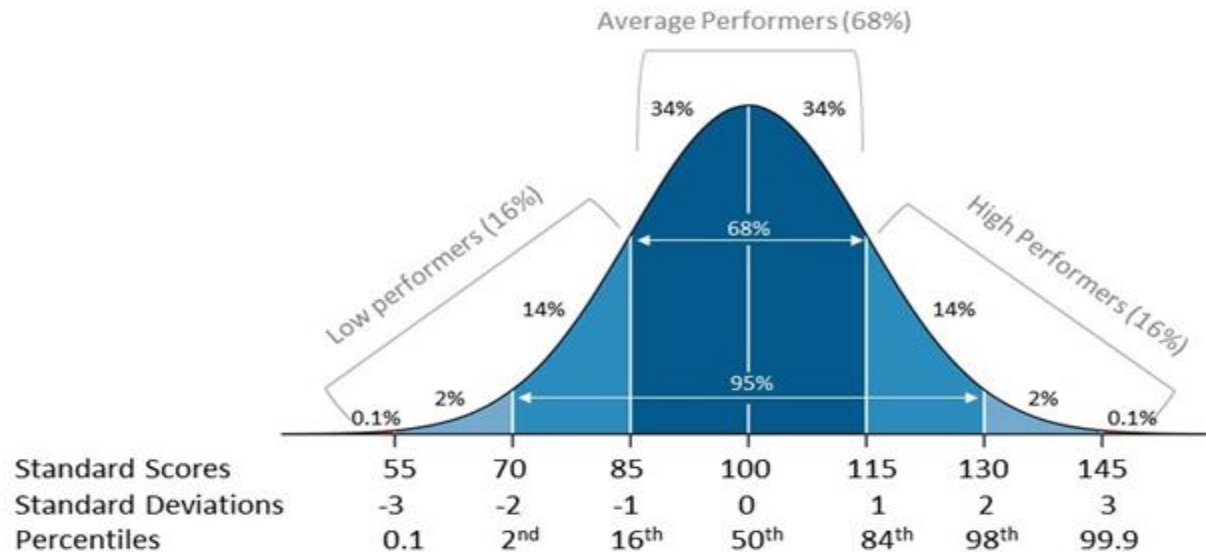


What are Functional Impairments?

- Functional impairments focus on how a student's disability manifests in learning environments.
- For our purposes, we will define functional impairments as:
 - “Academic barriers resulting from a disability”
- Further, not all areas of challenge will cause impairment. A barrier/impairment is present when the disability-related challenges that the student experiences collide with the demands of the program.
 - Example, student with SLD in math who has enrolled in an English or Social Services Worker program.



Determining Functional Impairment: From Psychoeducational Reports



Capturing Functional Impairment: From Medical Practitioners

- Disability Verification Form (OSAP)
- Institution Specific Forms (examples from the web)
 - WLU
 - Ottawa U
 - St. Lawrence College
 - U of Toronto
 - U of Windsor

Capturing Functional Impairment: Student's Perspective

- I can see from your transcript that you perform well in some classes and have struggled more in others. What is the difference between classes you tend to perform better in and those that you struggle in?
- What is the biggest challenge you face in your day-to-day ability to meet academic expectations?
- What support did you find most helpful in secondary school (or your previous post-secondary studies). Why was it helpful?



Capturing Functional Impairment



Patient Name: _____
 Date of Birth: _____ MRN/File No: _____
 Physician Name: _____ Date: _____

WEISS FUNCTIONAL IMPAIRMENT RATING SCALE – SELF REPORT (WFIRS-S)

Name: _____ Date: ____ DD ____ MM ____ YY

Date of birth: ____ DD ____ MM ____ YY Sex: ☐ Male ☐ Female

Work: ☐ Full time ☐ Part time ☐ Other _____

School: ☐ Full time ☐ Part time

Circle the number for the rating that best describes how your emotional or behavioural problems have affected each item in the last month.

		Never or not at all	Sometimes or somewhat	Often or much	Very often or very much	n/a
A FAMILY						
1	Having problems with family	0	1	2	3	n/a
2	Having problems with spouse/partner	0	1	2	3	n/a
3	Relying on others to do things for you	0	1	2	3	n/a
4	Causing fighting in the family	0	1	2	3	n/a
5	Makes it hard for the family to have fun together	0	1	2	3	n/a
6	Problems taking care of your family	0	1	2	3	n/a
7	Problems balancing your needs against those of your family	0	1	2	3	n/a
8	Problems losing control with family	0	1	2	3	n/a
B WORK						
1	Problems performing required duties	0	1	2	3	n/a
2	Problems with getting your work done efficiently	0	1	2	3	n/a
3	Problems with your supervisor	0	1	2	3	n/a
4	Problems keeping a job	0	1	2	3	n/a

[WFIRS-S.pdf \(caddra.ca\)](#)



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Assessing academic impairment in college students with disabilities: A new measure to promote evidence-based accommodation granting

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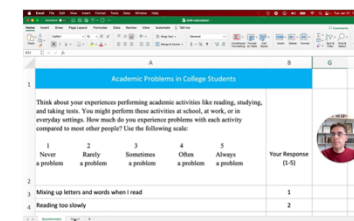


Academic Impairment Measure (AIM)

The AIM is a brief, self-report measure of academic problems in college students. It allows professionals to assess students' functioning in seven academic domains: reading, math, foreign language learning, social-academic functioning, note-taking, test-taking, and time management. It yields standardized T scores that can help professionals identify students with substantial limitations in these academic activities, plan accommodations, and monitor the effectiveness of services over time.

Professionals can [obtain a copy of the AIM calculator here](#).

You can learn more about the psychometric properties of the AIM [here](#).



[Neuropsychology - For Professionals \(denison.edu\)](#)



Linking functional impairments identified to evidence-based accommodations

Linking identified functional impairments to accommodations

Student Name:

Student Number:

Program:

Year in Program:

Nature of Disability and Severity:	Impacts (Functional Limitations):	Appropriate Accommodations:
Learning Disability in Reading Written expression Mathematics Severity:		
Attention Deficit/Hyperactivity Disorder Inattentive Hyperactive/Impulsive Severity:		
Mental Health Condition Severity:		
Autism Spectrum Disorder Severity:		
Medical Disability Severity:		
Mobility Impairment Severity:		
Sensory Disability Severity:		

Linking identified functional impairments to accommodations

Student Name:

Student Number:

Program:

Year in Program:



Nature of Disability and Severity:	Impacts (Functional Limitations):	Appropriate Accommodations:	Notes:
<p>Attention Deficit/Hyperactivity Disorder</p> <p>Inattentive</p> <p>Hyperactive/Impulsive</p> <p>Severity:</p>	<p>Challenges with study skills, time management, and organization</p> <p>Easily distracted during tests and examinations.</p> <p>Difficulty sustaining attention and/or remaining still for prolonged periods of time.</p> <p>Short attention span and/or easily distracted during lectures.</p> <p>Challenges managing symptoms of ADHD</p>	<p>Learning Strategist support for <u>study</u>, time management, organization skill development 1</p> <p>Access to a reduced <u>courseload</u></p> <p>Access to a distraction-reduced space for tests and examinations 2</p> <p>Stop-the-clock rest breaks to refocus and stretch during tests and exams <u>2</u></p> <p>Access to a note-taking tool to record lecture <u>materials</u></p> <p>Encouragement to access psychosocial intervention (such as cognitive-behavioural therapy for ADHD) and possible pharmacological treatment 1 3 4 5</p>	

Linking Impairments to Reasonable Accommodations

Student's initials

Student's disability

☐ Autism Spectrum Disorder (ASD)

☐ Attention Deficit/Hyperactivity Disorder (AD/HD)

☐ Learning Disability/Specific Learning Disorder

☐ Mental Health Disorder

☐ Dysgraphia (fine motor challenges affecting handwriting)

☐ Mild Intellectual Disability (MID) (not a diagnosis but an educational exceptionality)

https://queensu.qualtrics.com/jfe/form/SV_do3AfDFH8pUpwMe

Case Example

- Student presents with clinical diagnoses of **Attention Deficit/Hyperactivity Disorder** and **Generalized Anxiety Disorder**.
- Areas of functional impairment identified include:
 - Challenges with attention/concentration
 - Issues with time management/organization
 - Stress management
- What are reasonable, evidence-based accommodations to address functional impairments identified?



Questions?



Thank You!

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