

Think dyslexia. Think potential.

What is dyslexia?

People with dyslexia have average to gifted intelligence, yet unexpectedly struggle with reading, writing or math because their brain processes information differently.

When left unaddressed, those with dyslexia often experience low academic performance despite their amazing capacity to contribute to the field of STEM through their strengths in:

- Big picture interconnected thinking
- Brilliant spatial reasoning
- Highly creative problem-solving

20% of students are dyslexic, yet 80% of these students go undiagnosed.

Only 1 in 5 go on to post-secondary education...Why is this?

Individuals with dyslexia are highly capable of understanding and applying concepts and information, but accessing and processing their knowledge to complete projects, papers and labs can be unnecessarily challenging. They may have difficulty with these skills:

- Reading extensively when accessibility options are limited
- Writing labs, research papers and essays
- Following complex instructions without clear step-by-step instructions/models
- Note-taking in class and in the field, particularly by hand
- Recalling independent facts out of context during examinations (for example, fill in the blank or multiple choice questions)

These activities are tricky because of difficulties with phonological processing, working memory, short term memory, written output, and, at times, fine motor skills.

Many of the world's leading innovators, inventors and visionaries are dyslexic.



Albert Einstein

Alexander Graham Bell

Thomas Edison

Carol Greider

Steve Jobs

Michael Faraday

Maggie Aderin-Pocock

Ann Bancroft

Leonardo DaVinci



3 Tips for Your Lectures, Labs & Seminars to enhance learning for all students.

1

What? Minimize the need for note taking and misunderstandings due to new vocabulary and concepts by providing them in advance of each lecture.

Why? Advance review reduces the cognitive load of the learning process. This improves students' capacity to comprehend new material, as well as store and retrieve information in long term memory.

How? Create a list of key concepts and vocabulary for your course, accompanied by simple definitions. Post or email these lists along with lecture slides or notes prior to each class.

2

What? Provide clear, concise, and easily readable step-by-step instructions with accompanying images where possible.

Why? Working memory, the capacity to hold onto prior information while moving onto another step, can be tricky for dyslexic learners. This can make lengthy instructions difficult to follow.

How? Write instructions using bulleted numbered steps with 1.5 spacing between lines. Add accompanying visuals where possible. Use a highly readable font such as Arial or Verdana in 12 point.

3

What? Allow preparation time for key topics and questions in advance of seminars. During discussions, provide students with "think time" prior to expecting a response.

Why? Dyslexic learners often need a moment to collect and organize their thoughts on a topic prior to engaging in discussion. This helps them to add meaningfully to the conversation.

How? Provide students with a list of key topics and questions for discussion prior to each session. When possible, cue a student verbally to let them know you would like to hear from them next.