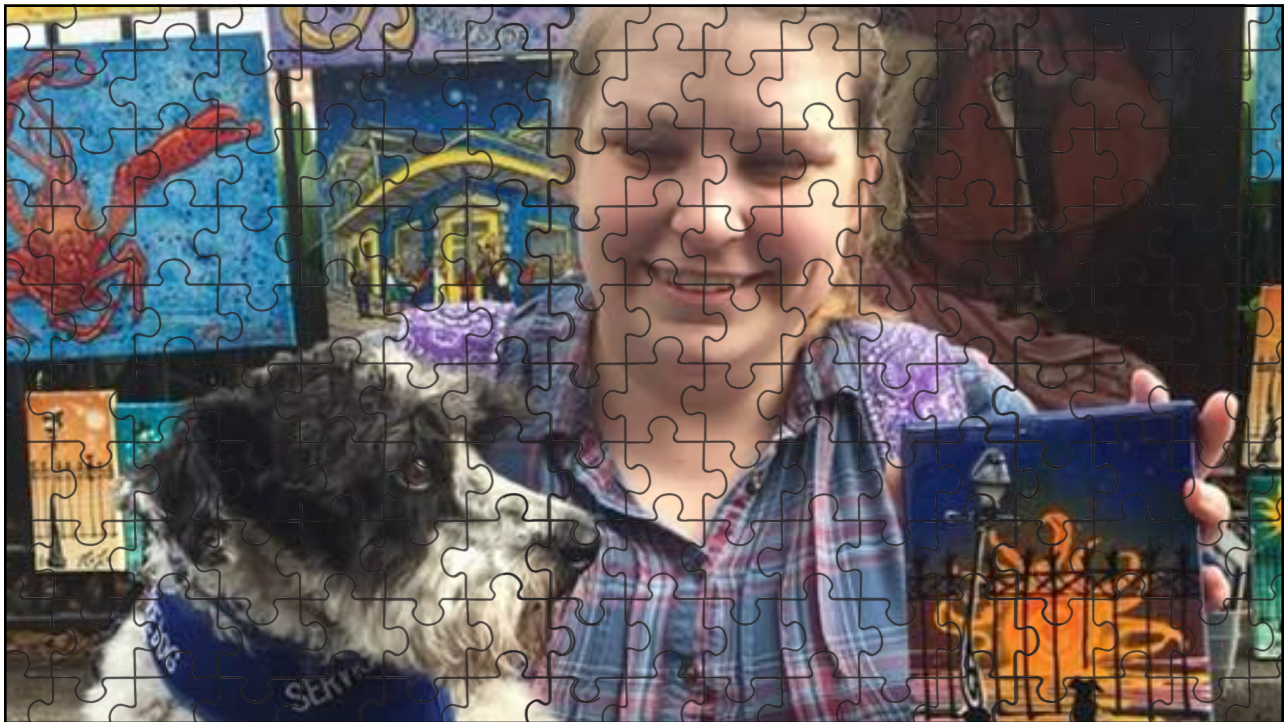




## The Dyslexic Advantage

AMIE E. NORTON





People with Disabilities are not defined by their disabilities but they are a part of who they are.



People with Disabilities have unique abilities. One of those abilities is often the ability to problem solve



Defining someone by there disability is only defining them by one piece of the who they are.. We are so much more. We are scientist, daughters, sons, moms, dads, neighbors, students, friends, animal lovers.. And so much more



I would rather be defined by the unique perspective I bring and unique abilities I bring.



## What I hope you leave this Talk with



Dyslexia is more than a reading disability it is a different way of thinking and can lead to strengths in areas that we need in science.



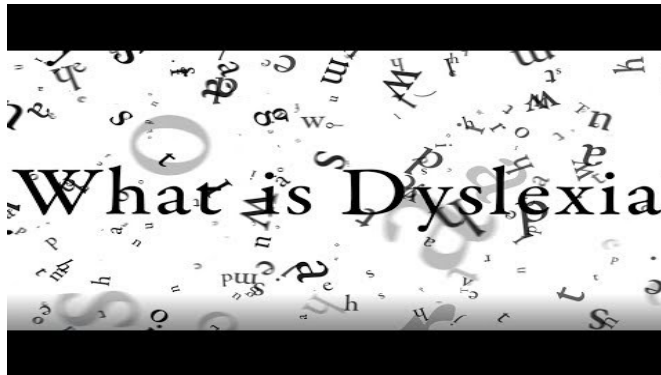
Some of our most famous scientist are thought to be dyslexic



Individualizing a plan for a student will not take away from the classroom, and small changes can make a big difference

## Dyslexia Simulation

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[Josh Penn Design](#)

## Myths of Dyslexia

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**People with Dyslexia read backwards**

Some people with dyslexia have a high reading comprehension and high verbal IQ



**People with Dyslexia should just try harder**



**Dyslexia is curable**



**Dyslexia=low IQ**

## Myths of Dyslexia

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**Dyslexics Can't read**  
Some Dyslexics have a high Reading Comprehension



**Dyslexia is just a reading disorder**



**Dyslexia is caused by a lack of phonics instruction**



**There is not enough money in the education budget to pay for accommodations or additional teacher training.**

## Causes of Dyslexic

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**GENES AND HEREDITY**

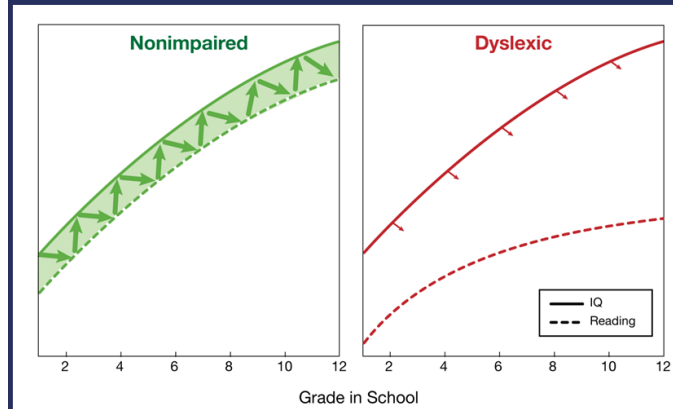


**BRAIN FUNCTION IS DIFFERENT**

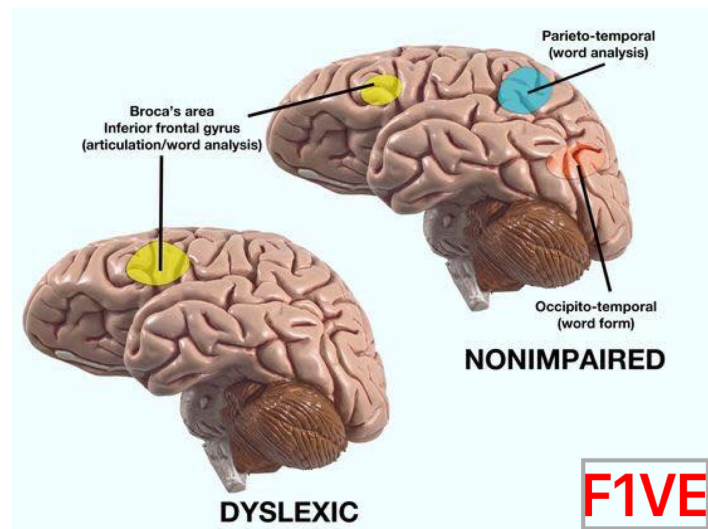


NO IQ link

Non-impaired: IQ-Reading Linked      Dyslexia: IQ-Reading Diverge



Based on Ferrer et al., 2011



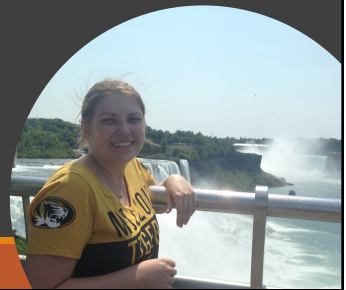
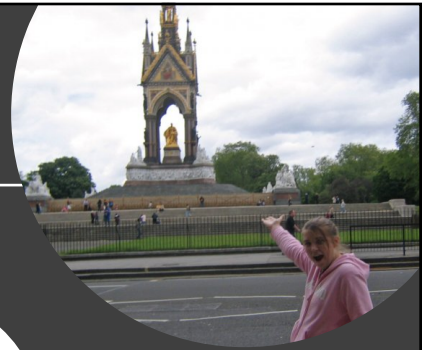
## My Story

Struggling with reading and writing

Testing (how did you make it here)

Finding Peace and positivity out of my LD

- When your greatest weakness becomes your greatest strength  
<https://storiesinscience.org/2017/11/26/weakness-becomes-strength/>



## What I learned Personally

Determination  
 Tenacity  
 Work Ethic  
 Problem Solving  
 Motivation  
 Compassion

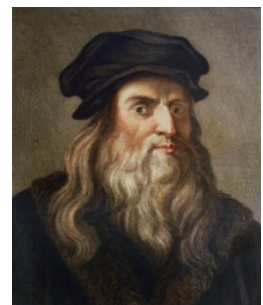
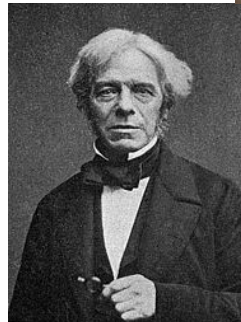
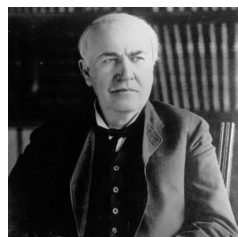
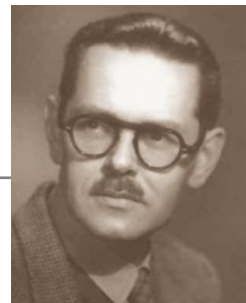
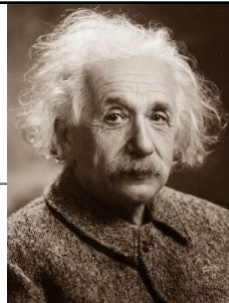


## Champions in your life

The school drop-out rate of dyslexics can be as high as 35%, twice as the national average school drop-out rate of many countries

It has been estimated that barely 2% of dyslexics enrolled in undergraduate programs in the USA complete the requisite 4 years of study.

Silver L. Learning Disabilities & Attention Deficit Hyperactivity Disorder. From:  
International Dyslexia Association  
American Dyslexia Association



## Hope

40% of self made millionaires are dyslexic

*dyslexic engineers*, artists, computer designers, architects, inventors, film producers, actors and entrepreneurs are twice as much than in the general population

**Where there is no vision,  
there is no hope.**

George Washington Carver

BrainyQuote

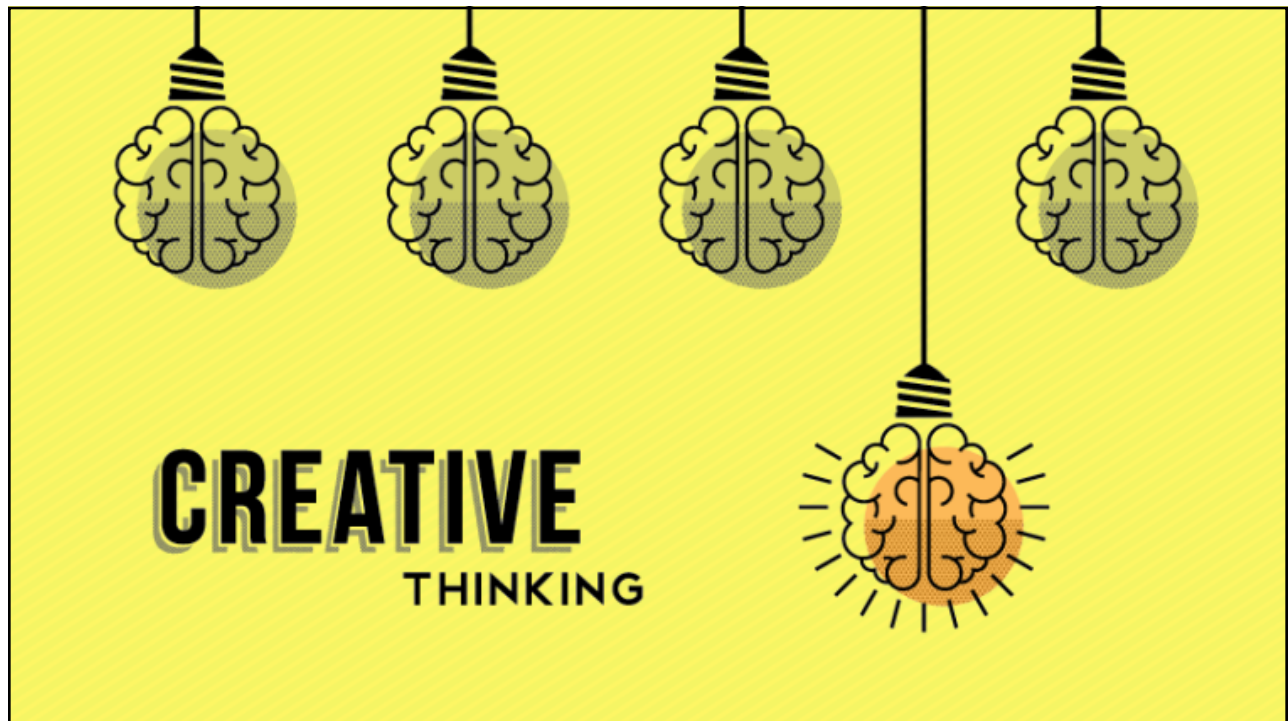


Overall  
Dyslexia  
Can be a  
Gift

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## Dynamic Reasoning



REASONING WELL AND WORKING WITHIN DYNAMIC SETTINGS COMES EASY TO SOME OF THESE INDIVIDUALS, WHERE THE FACTS ARE NOT ALWAYS COMPLETE AND CONSTANTLY CHANGING.

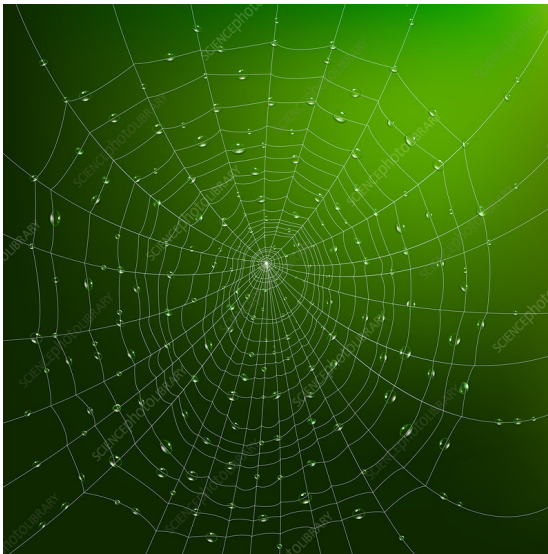


THEY EXCEL IN FIELDS WHERE THEY CAN RECONSTRUCT PAST EVENTS SUCH AS GEOLOGY, AND IN FIELDS THAT REQUIRE A CERTAIN AMOUNT OF PREDICTION, SUCH AS BUSINESS AND FINANCIAL MARKETS.



GEOLOGIST, NOVELISTS, DETECTIVES, ECONOMISTS AND ENTREPRENEURS

## Interconnected Reasoning



Interconnected reasoning is being able to see the unique connections that others often miss.

It is being able to create a web, just like a spider does, where everything is connected.

It's taking in different perspectives and approaches and creating a big-picture view.

Many talented naturalists, artists, designers and scientists have this strength that comes with having Interconnected reasoning

# Material Reasoning

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Material Reasoning is being able to take a 3-D perspective of physical objects in your mind. It is similar to spatial reasoning.

This is a very useful skill, and this skill helps to create many important inventions such as the chairlift pictured on the left.

If you like building with Legos, chances are you have a Material Reasoning Strength!

Many great engineers, designers, architects, mechanics, inventors, builders, and surgeons have had this Material Reasoning.

## Narrative Reasoning

Narrative reasoning is being able to create vivid "mental scenes" to display important ideas and concepts from the past, present or future.

It is having a great personal memory (aka episodic memory).

It's being able to write so vividly that others can imagine it clearly.

Many talented authors, screenwriters, lawyers and public speakers

## Tips that have helped me

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Solve problems to remember the material (Anything I can apply I can remember)

Natural Reader Program For Checking For Writing Mistakes

Fonts make a difference

Color coding

## Conclusions

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Inclusion is about making the chemistry community bigger

It's about appreciating each other unique perspectives that our experiences and abilities have given us

People with disabilities have unique perspectives and unique abilities.

# Acknowledgements

Chemist with Disability Committee

BGSU

