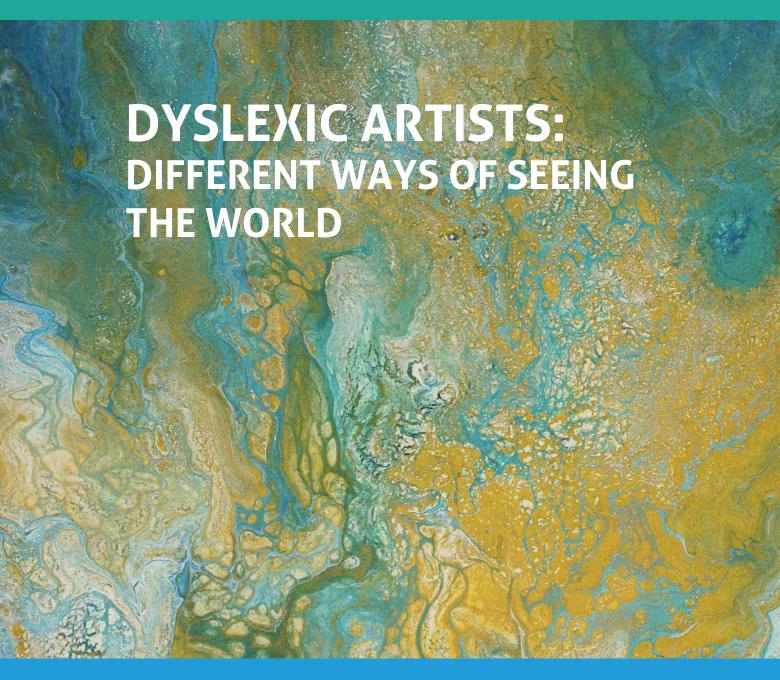
# Dyslexic Advantage NEWSLETTER



 MATH AND DYSLEXIA: LATEST RESEARCH

- STEALTH DYSLEXIA
- DYSLEXIA NEWS



# Winston In College Storied) Academic Support Anywhere













Dr. Fernette Eide Editor-in-Chief



Creative Writing and Thinking,

The Original School for

Dear Dyslexic Advantage community,

For many dyslexia is synonymous with art, design, and creativity. More research has identified why dyslexic people may excel in careers that require originality and the development of new ideas. Enjoy!

The link for this issue is:https://joom.ag/e1Zd

This issue will only be on Joomag for about 6 months. Afterwards, look for this issue in our Newsletter Archives at DyslexicAdvantage.org. Keep our programs running by donating or becoming a Premium subscriber!

NeuroLearning.

The **NEUROLEARNING** Dyslexia Screening App is \$79.99 and available for children and adults 7-70 years old. iPad, iPhone, Android, and Kindle Fire.

The app may qualify for services such as Benetech's huge free library of e-books. Bulk discounts available for higher ed.

Thanks to Shelley Wear, Trish Seres, Michelle Wiliams, Cheryl Kahn, and Jack Martin. Thanks to Lady Grace Belarmino for design and layout and Andi for their social media and admin help!

# **PREMIUM**

Editor's Note: to make our publications easier to read, we will avoid use of italics and certain types of fonts.

Newsletters can be read online **HERE**. This issue will be available on the Joomag site for 3 months and can also be downloaded as a pdf file.

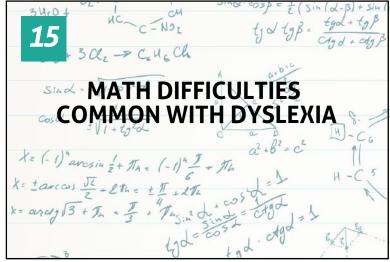


# CONTENTS

DYSLEXIC ADVANTAGE ISSUE 100 APRIL 2024 NEWSLETTER











# **VISUAL THINKING**

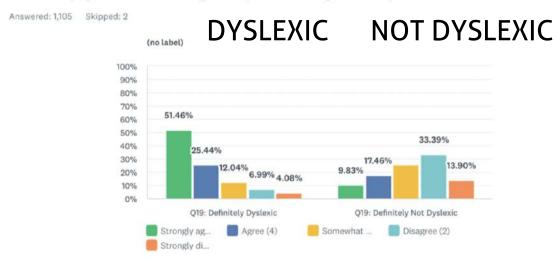
# DYSLEXIC ARTIST-EXPLORERS SEEING DIFFERENTLY

We know that dyslexic people are over-represented in schools of art and design compared to the incidence in the general population, but many have wondered why this may be so.

There's probably no single reason, but rather many reasons.

In our research on <u>dyslexic MIND strengths</u> and described in our book, <u>The Dyslexic Advantage</u>, for instance, dyslexics showed much stronger preferences for visual thinking and visualization. For instance:

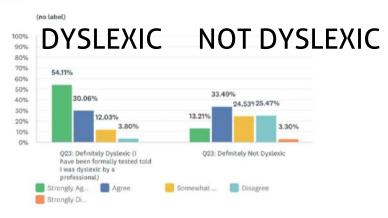
I am very good at forming 3D spatial images in my mind.



	a label)							
	•	STRONGLY AGREE (5)	AGREE - (4)	SOMEWHAT -	DISAGREE 🛫	STRONGLY DISAGREE (1)	TOTAL ▼	WEIGHTED AVERAGE
•	Q19: Definitely Dyslexic	51.46% 265	25.44% 131	12.04% 62	6.99% 36	4.08% 21	<b>46.61%</b> 515	4.13
•	Q19: Definitely Not Dyslexic	9. <b>83%</b> 58	17.46% 103	25.42% 150	33.39% 197	13.90% 82	53.39% 590	2.76

When I think of historical facts or events, I see "scenes" or depictions in my mind, rather than just recalling verbal descriptions.

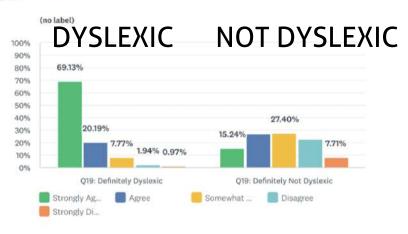


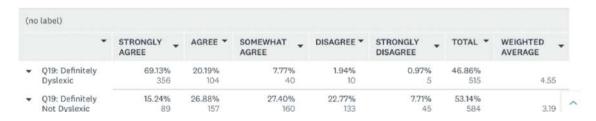


(no	(abel)							
	*	STRONGLY	AGREE *	SOMEWHAT	DISAGREE *	STRONGLY DISAGREE	TOTAL *	WEIGHTED AVERAGE
•	Q23: Definitely Dyslexic (I have been formally tested told I was dyslexic by a professional)	54.11% 171	30.06% 95	12.03% 38	3.80% 12	0.00%	42.70% 316	4.34
•	Q23: Definitely Not Dyslexic	13.21% 56	33.49% 142	24.53% 104	25.47% 108	3.30% 14	57.30% 424	3.28

I generally prefer diagrams or pictures to written instructions or explanations.

Answered: 1,099 Skipped: 8





# **VISUAL THINKING**

Of over 1000 "Definitely Dyslexic" individuals surveyed, 77% strongly agreed or agreed with the statement, "am very good at forming 3D spatial images in my mind. " Compared to "Definitely Not Dyslexic" people, only 27% agreed with the statement.

In response to the statement, "When I think of historical facts or events, I see " scenes" or depictions in my mind rather than just recalling verbal descriptions. 84% of definitely dyslexic people agreed with the statement compared to 47% of Definitely Not Dyslexic people.

In response to the statement, I generally prefer diagrams or pictures to written instructions or explanations, 89% of Definitely Dyslexic people strongly agreed or agreed, compared to 42% of Definitely Not Dyslexic people.

If visual learning and communication is considered a language, dyslexic people are more likely to to be fluent compared to non-dyslexic people.

Recently, <u>researchers in France</u> studied various visual processing differences and strengths among dyslexic and non-dyslexic adolescents. Using the Torrance test of figural creativity, they found that dyslexic teens performed better on tests of visual fluency and flexibility.

The figure at right shows an example of a dyslexic student showing high creativity score with a scribble prompt vs. a non-dyslexic student with a low score.



Low Creative

**High Creative** 



Learning Differently

Teaching Differently

Succeeding

# TUTORING & ASSESSMENT SERVICES FOR ACADEMIC SUCCESS

1 to 1 • Virtual & In-Person • K-Adult

Research-Based, Multisensory Instruction in Reading, Writing, & Math | Executive Function Strategies | College Application Support







commlearn.com

# **VISUAL THINKING**

With an explosion of visual ideas it's not surprising that some dyslexic thinkers can be distracted by their internal thoughts and associations. That might be why applying oneself to particular problems or thinking thematically can be so organizing, focusing, and calming.

Remember, other studies of dyslexic and non-dyslexic subjects have found that dyslexics as a group have strong recognition and incidental memory. That means there may be little bits of information that that are held on to - and for instance can be pulled out on creativity tests, or difficult design problems on a job, but it may not necessarily be applied to other cognitive tasks such as adding up columns of numbers or spelling tests in foreign language class.

Author and Dyslexic Advantage Board member, Thomas G West, has talked extensively about the virtues of dyslexia, visual thinking, and being able to see what others cannot see - and these strengths come through very powerfully in art makers of every type.

Some years ago, I enjoyed interviewing award-winning National Geographic photographer Robert Clark who has said that his dyslexia drives his photography because it made him more visual.

He also told me in an interview that I had with him for our Premium Dyslexic Advantage magazine that the turning point in his path toward becoming a photographer came when a 6th grade art teacher told him "You could really do this for a living."

It was in the 6th grade, that Robert remembered noticed an interesting phenomenon involving light:

"The lights were turned off and there was a tiny bit of light coming in through the Venetian blinds. Cars were going past and the cars were moving away."

He spoke to his art teacher about what he saw, and he learned that the blinds were creating a little camera obscura effect - like an early camera.

It's noticing things like this - that probably everyone else in the classroom missed - that makes dyslexic artists so distinctive. Visit Robert Clark's <a href="Instagram feed">Instagram login required</a>) to see more examples of Robert's work.

I especially liked his video reels which I can't embed in this magazine, but here is a screenshot - one looks like dandelions at sunrise, while another follows some of the changes of soap bubbles as they pop and fuse with other bubbles.





It's easy to imagine how Robert might have gotten in trouble with not paying attention in class; but also how his noticing things that so many people overlook - can be important for so many things - the arts of course, but also fields like science and engineering where a new observation may lead to an important discovery or invention.

It's not surprising, then, that sometimes art, science, and engineering, exist in the same person, like <u>Dr. Mimi Koehl</u> or <u>Rebecca Kamen</u>.

## **VISUAL THINKING**

One final example of innovative thinking from identical twin dyslexic artists comes from the twins Ryan and Trevor Oakes (their website: <a href="mailto:oakesoakes.com">oakesoakes.com</a>). I first came across their work when were making concave drawings (see below).



After that, Modern Met and Boooooom shared some of the thinking behind their matchstick sculptures.

They do not just create to make certain artworks; they create to discover and explore ideas.





"Building that sculpture was the first time we started to think about other entities in nature that shared that spatial structure, the structure of a bunch of rays perpendicular to a sphere... It was building that structure that really got us to wrap our minds around the science involved, and to start considering the physics of it more specifically."

- Trevor Oakes



# Storied ))

You talk We'll write

Learn More!

Watch demo video

Try our voice-to-writing app

StoriedWork.com

# ORGANIZE YOUR AWESOME IDEAS

Storied is an AI co-pilot for dyslexic leaders, designed to organize non-linear thoughts and ideas into clear communications.

#### USAGE:

Capture ideas and get to clarity with questions and suggestions

Communicate with impact by quickly generating an amazing first draft

Enable individuals, organizations, and teams

# BuddyBooks for Struggling Readers





Improve fluency by 24%

Continuous assessment during independent reading

To get started, visit: www.objectiveEd.com/dysadv

### STEALTH DYSLEXIA



# **QUESTION: HOW DO YOU HELP STEALTH DYSLEXIA?**

Stealth dyslexia is a term we <u>coined</u> almost 20 years ago to describe dyslexic students who could "fly under the radar" of detection because of compensatory strengths.

These students may be "stealth" because they can silently read passages, and comprehend the essential points, but have weak single word decoding and reading fluency when asked to read aloud. Among stealth dyslexics, writing and spelling may be greater challenges than reading.

What these students needs depends on which combinations of challenges are the most prominent at any time. Because many students are also gifted, IQ testing can identify strengths and direct placement in advanced classes or subject differentiation in addition to other academic needs.

#### COMMON CLASSROOM DIFFERENTIATION NEEDS FOR STEALTH DYSLEXICS

Intellectual challenge at the level of ability

Possible phonological work (single word decoding)

Likely orthographic work (spelling, roots, prefixes and suffixes)

Extra time for tests

Assistive technology - text-to-speech, spellcheck, grammarcheck

Possible accommodations for math, foreign language, science

#### STEALTH DYSLEXICS MAY BE OVERLOOKED

The challenge facing most stealth dyslexics is getting schools to notice their needs. Because of a pattern of strengths and weaknesses, they may fall into the gap - not weak enough to qualify for services and supports, but not strong enough (especially without receiving appropriate accommodations to qualify for advanced classes).

The problem with being overlooked for needs, is that mismatched curriculum can take a tremendous toll on students' well-being and approach in school. Students who receive instruction far below their intellectual level can develop secondary mood and behavioral problems (including anxiety, depression, acting out, school and social withdrawal), worsening their educational situation.

It is not uncommon for a teacher or school to not believe any specialized needs are present for a twice-exceptional student (student who is gifted with a learning difference like dyslexia); but the reality may be that they need changes for their strengths as well as weaknesses.

The Davidson Institute has a helpful page on <u>Clarification of Federal Law as It</u> <u>Applies to Twice-exceptional Students</u>.

Ideally, students who are thought to be stealth dyslexics, can have a professional guide them with recommendations - sometimes this is a professional or group (like SummitCenter.us) that specializes in assessing and counseling twice-exceptional students, other times it's a tutor, teacher, or parent who really works to understand what is needed.

Because cognitive abilities, including executive function and working memory change considerably during development, what students may need at a particular point-in-time can vary greatly.

More information about stealth dyslexia can be found in our <u>library</u>. To go more in-depth, check out our <u>Premium</u> subscription.







# Winston In College

**Academic Support Anywhere** 

Transitioning to College? Struggling in College? We can help.

Winston in College offers virtual learning support services for adult students with learning disabilities such as dyslexia, executive functioning difficulties (ADHD), and nonverbal learning disorders (NVLD) who are transitioning to or are currently enrolled in a college program.

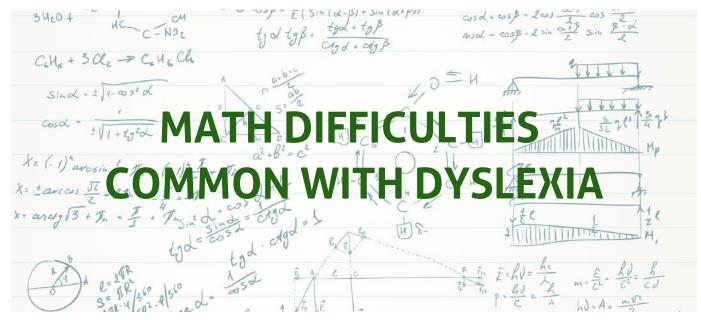


Learn More

or contact admissions today!

Part of Winston Online and the Winston Preparatory School Network

#### DYSLEXIA AND MATH



Although the pace of research into dyslexia beyond reading proceeds very slowly, there is some welcome recent <u>research</u> into some of the math challenges that are associated with dyslexia from the University of California.

Some of the key findings of the study:

- development of a new test a Mathematical Cognition Battery
- 66% or 2/3 of dyslexic students had math difficulties
- even those dyslexic students who were identified as having "no challenges in mathematics", had weaker math approximation abilities than the typically developing group
- the battery assessed students on 4 mathematical areas: number processing, arithmetical procedures, arithmetic fact retrieval, and geometrical abilities
- dyslexic students who scored poorly on number processing (13%), tended to score poorly on other math subtests.
- the most common math difficulties were: math fact retrieval and procedures (each 20%) students that had both were excluded from the study.

If you are a math teacher or tutor, you may want to read the paper in more detail.

# DYSLEXIA AND MATH

It's important that the math difficulties be identified among dyslexic students because otherwise students may fail to receive appropriate supports and accommodations with low performances in math being chalked up to "low potential." The reason this is important to know is that dyslexic students often have high potential in math - especially as they enter higher levels of math where applied thinking and reasoning abilities are necessary.

Because students can be "tracked" according to their performances with calculation, they may be placed in slower paced classes and may never have a chance to catch up or recognize their math talents. Later, if they wish to enter a science, technology, or engineering field, they may have to make up their math-deficient background because of inappropriate tracking.

#### NUMBER PROCESSING

The researchers characterized weak number processing by low performances understanding the magnitude of numbers, estimating quantities, and understanding number relationships like counting, recognizing numbers, compairing numbers, and ordering them. They recognized that dyslexic students with impaired number processing could have accompanying dyscalculia. Resources for helping number processing or number sense can be found on Youcubed HERE.

#### **ARITHMETIC PROCEDURES**

From the study: "...children with deficits in arithmetical procedures struggle with understanding, applying, and reproducing mental and / or written calculations. Errors in this group included errors inverting the order of digits or treating 5-3 the same as 3-5, as well as other errors of direction of math hoperations. Another error that was grouped under procedures was the practice of subtracing a smaller number from larger at the expense of other rules.

#### MATH FACTS RETRIEVAL

From the study, "Children with deficits in arithmetic facts do not show difficulties in number subtests, and they are able to perform calculations. However, they struggle to recall the results of operations that should have been learned through rote memorization, such as multiplication facts.

The deficit in recalling multiplication tables is coupled with difficulties in writing multi-step multiplications and divisions.: "

The researchers added that this group of students took the longest of all students on written calculations and a multiplication table test. They also stated that some students with multiplication fact retrieval problems took longer because they were finding correct numbers by repeated addition.

One interesting finding of the study was this group's strong performance on geometry:

"Children with deficits in arithmetic facts retrieval also had the highest scores on the geometry subtests of the MCB. One potential explanation is that this group may have developed enhanced visuospatial skills..."

This information is interesting because of previously published insider accounts of dyslexic mathematicians who excelled at visual spatial thinking, but recalled struggles with math fact retrieval and procedures (read more <a href="here">here</a>).

#### **GEOMETRY**

From the study again, "Children with deficits in geometry...may struggle to process distances and directions, match shapes, match geometrical transformations (e.g. symmetries, rotations), and mentally construct a 3d model from a 2d shape.













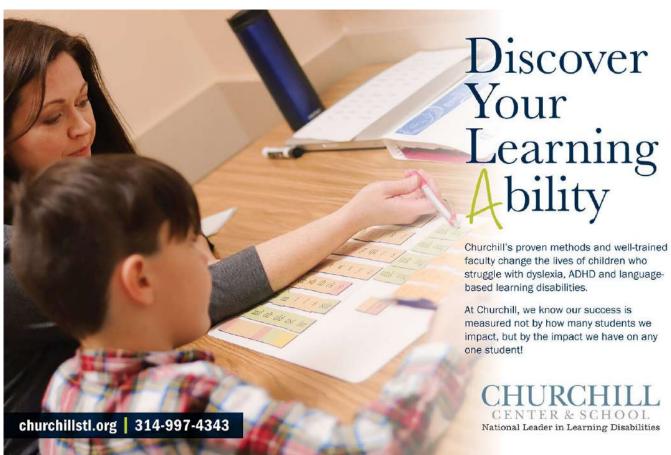
# TUTORING & ASSESSMENTS 1 to 1 • Virtual & In-Person • K-Adult

Research-Based, Multisensory Instruction in Reading, Writing, & Math | Executive Function Strategies | College Application Support

Needham (781) 444-5193

Danvers (978) 774-0094

commlearn.com





StoriedWork.com

Storied is an AI co-pilot for dyslexic leaders, designed to organize nonlinear thoughts and ideas into clear communications.

## USAGE:

- Capture ideas and get to clarity with questions and suggestions
- Communicate with impact by quickly generating an amazing first draft
- Enable individuals, organizations, and teams





# Winston In College

**Academic Support Anywhere** 

Transitioning to College? Struggling in College? We can help.

Winston in College offers virtual learning support services for adult students with learning disabilities such as dyslexia, executive functioning difficulties (ADHD), and nonverbal learning disorders (NVLD) who are transitioning to or are currently enrolled in a college program.



#### Learn More

# or contact admissions today!

WO: winstonprep.edu/online
WiC: winstonprep.edu/winston-in-college | 646.970.3338
Part of Winston Online and the Winston Preparatory School Network







# Helping Children, Teens, Adults, and Families Realize Their Potential

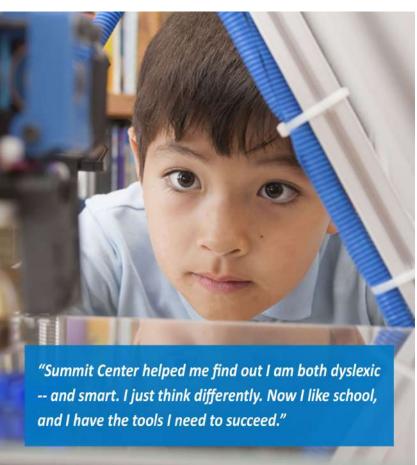
#### assessment | consultation | treatment

Summit Center specializes in helping students with complex learning profiles and differences -- including kids who may be gifted, and those who might be both gifted and have challenges (known as twice-exceptional or 2e). We provide formal evaluations of strengths and challenges, and offer specific strategies and recommendations to guide growth and maximize potential.



#### Offices in California:

San Francisco Bay Area 925-939-7500 Los Angeles Area 310-478-6505 www.summitcenter.us info@summitcenter.us



### DYSLEXIA AND MATH

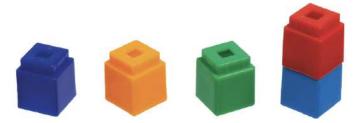
So what should a student expect in school?

This paper is only early information into the presence of math difficulties among dyslexic students. The vast majority of dyslexic students don't have specific math difficulties identified nor do they have math mentioned on their 504 or IEP.

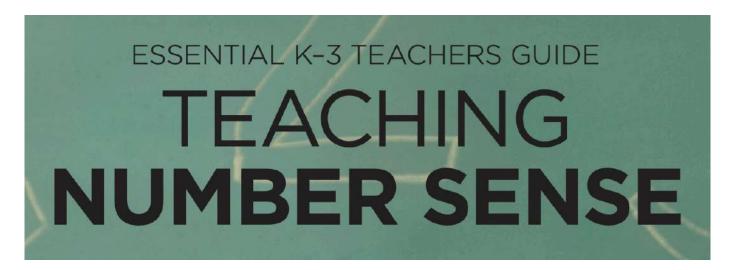
More information about strategies to help with math can be found in our Dyslexia library <a href="here">here</a> (free and Premium resources).

Number sense often requires a great deal of practice with composing and decomposing numbers and use of manipulatives before moving to pencil and paper and math symbols.

Physical materials can also help students with math fact retrieval, procedural, and geometric difficulties; many students need to know why certain procedures are true, instead of memorizing without understanding.



Accommodations for math can be straightforward; students can ask to be able to use a calculator for mathwork, when calculations aren't the focus of a lesson or test. Many students have accommodations for being able to work 'open book' or with a formula card, too. Those accommodations may be necessary to make sure that test results are a true reflection of math knowledge.



## **INSPIRATION**

# A DAY IN THE LIFE OF A CREATIVE DIRECTOR: GUY CORNET

"It was my dyslexia that made me who I am today."



# - Guy Cornet, Creative Director Free Partners

Creative director Guy Cornet recently reflected on his dyslexia in a recent <u>post</u> on Creative Blog.

It made me listen
It made me relate
It made me hungry
It made me fair
It made me think
It made me understand people
It made me passionate
It made me have doctors handwriting
It made me a creative

#### From the interview:

"A lot of neurodivergent individuals have found solace in the creative space. This is a place that has been built for people who think differently. And the industry needs fresh outlooks to stay ahead of the curve...

Being dyslexic, I found it extremely stressful working in a world that wasn't built for someone with my 'disability', and I found my way through the help of art and design. The creative industry is a salvation for people like me."

# **DYSLEXIA NEWS**



I've Been A Journalist for 20 Years, But I Kept My Dyslexia a Secret

**INEWS** 



Prevalence of Undiagnosed Dyslexia in African American School Children (Shaywitz)

**Pub Med Central** 



**Emotional Intelligence, Acting, Michael Provost** 

Youtube Made By Dyslexia



**Understanding Dyscalculia** 

**Scientific American** 



**Dyslexia and Imposter Syndrome** 

Mayam Bialik



Bills to Watch in Michigan (Dyslexia Screening)

**Michigan Daily** 



Churchill's proven methods and well-trained faculty change the lives of children who struggle with dyslexia, ADHD and language-based learning disabilities.

At Churchill, we know our success is measured not by how many students we impact, but by the impact we have on any one student!

CHURCHILL
CENTER & SCHOOL
National Leader in Learning Disabilities

"Summit Center helped me find out I am both dyslexic -- and smart.

I just think differently.

Now I like school, and I have the tools I need to succeed."

## Helping Children, Teens, Adults, and Families Realize Their Potential

assessment | consultation | treatment

Summit Center specializes in helping students with complex learning profiles and differences — including kids who may be gifted, and those who might be both gifted and have challenges (known as twice-exceptional or 2e). We provide formal evaluations of strengths and challenges, and offer specific strategies and recommendations to guide growth and maximize potential.



#### Offices in California:

San Francisco Bay Area 925-939-7500 Los Angeles Area 310-478-6505 www.summitcenter.us info@summitcenter.us





# HIGHER ED

For use by higher ed organizations such as colleges, universities, and voc/tech schools with their students.

# PERSONAL

For use by individuals and families ages 7-70 (including homeschoolers).

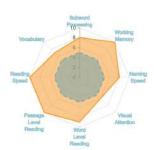
## **SCHOOL & PRO**

For primary/secondary school personnel, assessment professionals, tutors, therapists, and nonprofits. Suitable for ages 7-70.

#### NeuroLearning

Understanding Your Dyslexia Subscale Score:

ALL SCORE RANGES ARE 1-10. SCORES 7+ INDICATE GREATER DYSLEXIA RISK OR READING CHALLENGES.



The radar graph of your scores provides a quick overview of your Dyslexia Subscale Scores

The further a particular score is from the center of the graph, the greater the likelihood it represents a dyslexia-associated processing

#### **Foundation Scores**

These are low-level processing skills underlying reading and spelling



#### Subword Processing: 8

degeures your brain's ability to break apart



#### Working Memory: 10

easures the amount of auditory-verbal info our brain can actively process at one time.



#### Naming Speed: 8

Measures the speed at which your brain can recall words from memory in response to



#### Visual Attention: 6

Measures how well your eyes and brain cooperate to gather accurate information

#### **Achievement Scores**

These are learned reading skills.



#### Word-Level Reading: 9

grize (or 'sight Measures your ability to a read") and decode words.



#### Passage-Level Reading: 10



Measures the speed which you read sentences and paragraphs.



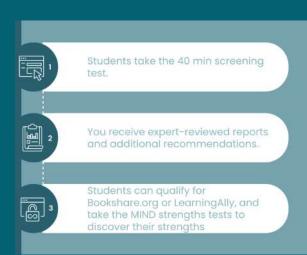
#### Vocabulary: 7

Scotes 7 and higher can increase reading problems.

# **NEUROLEARNING.COM**

Dyslexia Screening with Free Strengths Assessment

# **HOW DOES IT WORK?**



# Discover your dyslexic strengths

Dyslexic minds have a **special ability to create complex mental models** of objects and ideas. These models become powerful tools for creative thinking and big picture problem solving.

Drs. Brock and Fernette Eide, renowned dyslexia experts and authors of "**The Dyslexic Advantage**," discovered specific high level strengths can predict dyslexia as accurately as difficulties in decoding and spelling.

Discover your dyslexia-associated strengths with our free MIND Strengths self-assessment survey.

Sign Up For Your MIND Strengths Assessment

#### **Dyslexic Brain Strengths:**

- 3D Spatial Reasoning
- Memory From Personal Experiences
- Pattern Recognition
- Spotting Trends/ Making Predictions
- Systems Reasoning
- Storytelling





NEED TO LEARN MORE IN 2024?

Check out all our goodies at: **DyslexicAdvantage.org** 

