WHO ARE OUR STUDENTS AND WHAT DO THEY NEED

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Past President, NW Gifted Child Association



AGENDA

Core characteristics

Turn & Talk

Neuroscience of the high IQ brain

SEL characteristics

Turn & Talk

Twice exceptional (2e)

Getting flexible

Turn & Talk

The bright student dilemma

Exercise: Takeaways



WHO ARE THESE KIDS?

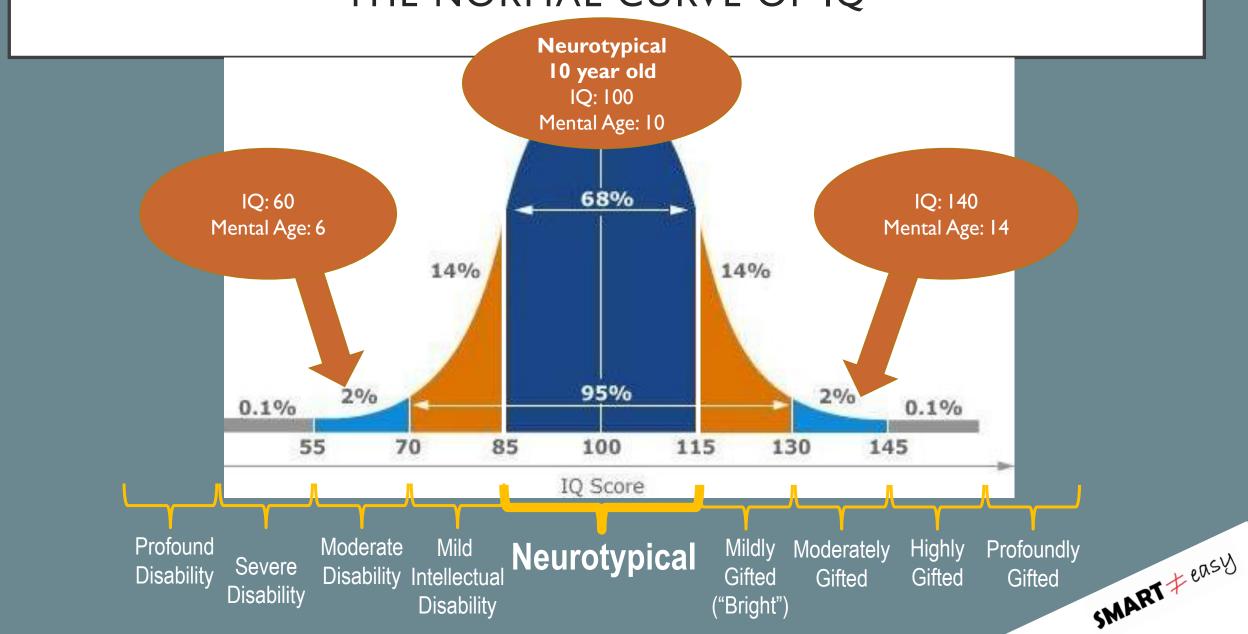
What do we mean by the word "gifted"? What does IQ have to do with it?





- I hate the word "gifted"
 - Poorly understood ("Every child is gifted")
 - Negative connotations
 - Many believe it is elitist
- But, it's the term used by researchers and most professional organizations
- Synonyms
 - Smart, very bright, high intelligence, high IQ, highly capable (HiCap), TAG
 - NOT (necessarily) high-achieving

THE NORMAL CURVE OF IQ



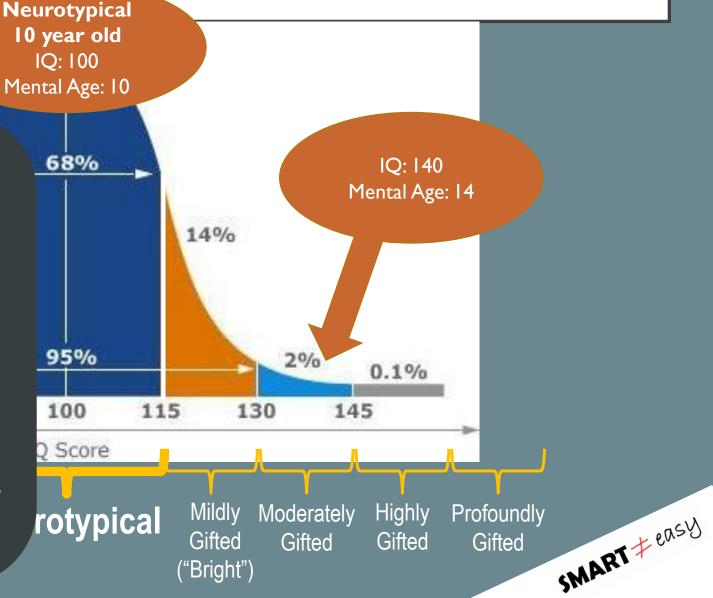
THE NORMAL CURVE OF IQ

IQ Tests are **NOT** perfect

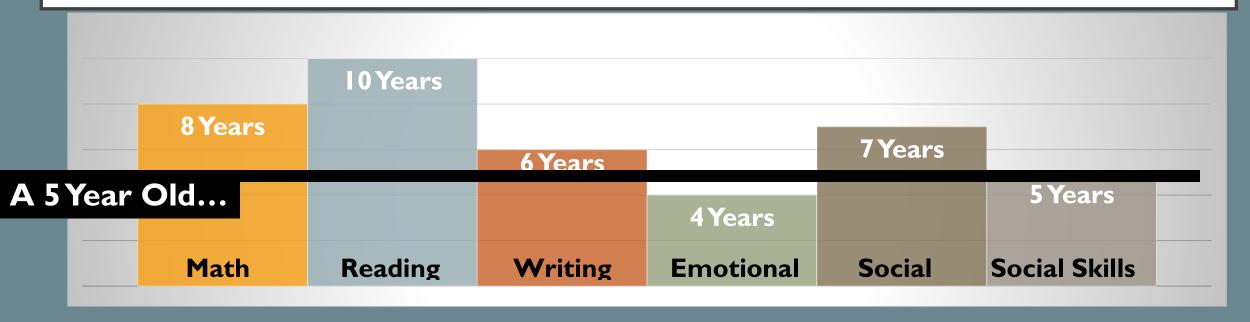
BIAS Assumes dominant cultural norms and exposure to concepts/vocabulary

ONE LENS They don't measure every type of giftedness

VARIABLE Who gives it and how it is administered makes a BIG impact (Easy to get false low scores)



ASYNCHRONY



- Most gifted kids develop asynchronously
- Don't assume a higher level of maturity...
- MYTH: "If she can't do [XX] well, then she's not gifted"

EQUALLY LIKELY TO BE GIFTED

- Girls vs. boys
 - But girls are less likely to be referred for testing
- Poor vs. rich

But low-income families rely on public gifted programs, "the rich have other options" -- Dr. Linda Silverman

English-speaking vs. non-native speakers

 Giftedness cuts across all socioeconomic groups, nations, ethnicities, races, cultures...

IQ RUNS IN FAMILIES

- Out of 148 sets of siblings
 - Over I/3 were within 5 IQ points of each other
 - Over 3/5 were within 10 points
 - Nearly 3/4 were within 13 points
- But second-born & girls less likely to be referred for testing

Parents and grandparents too... ©

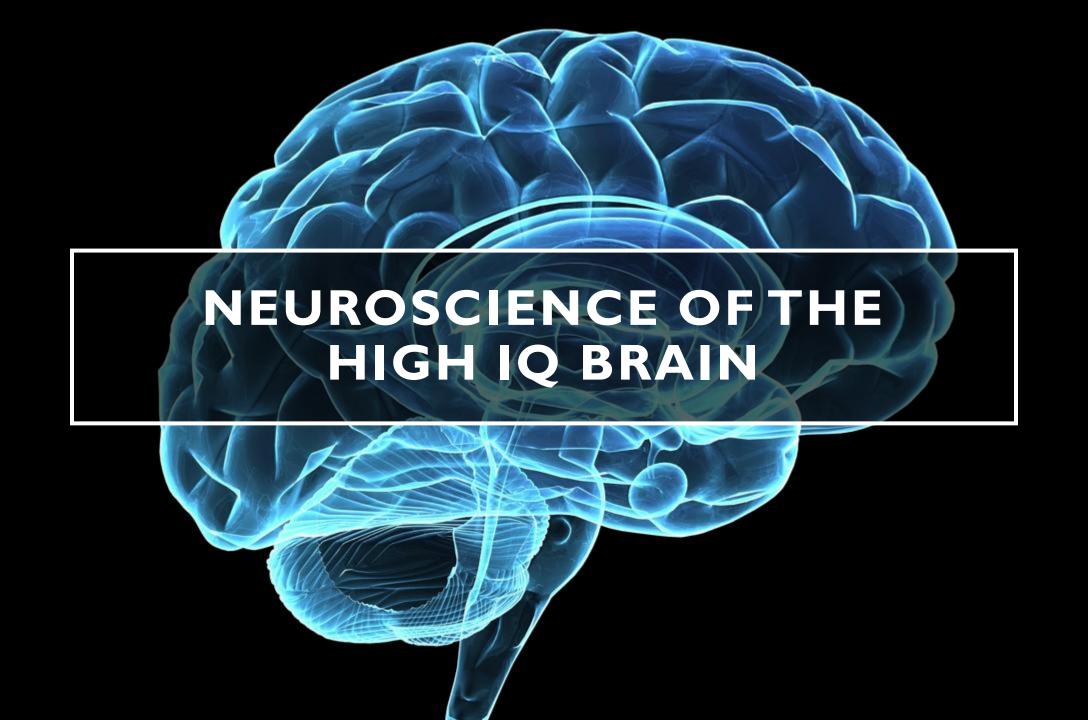
(Silverman, 2009)





THE EMPTY CHAIR

Picture a student who you are still working on "figuring out" sitting in this chair today



EVERY BRAIN IS UNIQUE JUST LIKE A FINGERPRINT (VALIZADEH ET AL., 2018)

NEURODIVERSITY

HIGH IQ BRAINS ARE **NEURODIVERSE** IN PREDICTABLE WAYS

HOW ARE THEY DIFFERENT?

NEUROSCIENCE ABOUT HIGH IQ

- Regional brain volume is BIGGER in some areas (left hemisphere, bilateral frontal cortex, phonological loop, working memory, sensory, anxiety, amygdala

 emotional regulation)
 - And smaller in others (lateral-parietal junction)
- DENSER connectivity between some areas (arcuate fasciculus, corpus callosum - "information highways")
 - And sparser connectivity in others
- Development happens on a different timeline
- High IQ brains are physically different neurodiversity

NEUROSCIENCE ABOUT HIGH IQ

Regional brain volume is BIGGER in some areas (left hemisphere, bilateral

frontal cortex, phon (Schnack, 2014)
amygdala ←emoti (Roman, 2018)

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 (Haier, 2004)
 - And sparser connection
- Development happe
- High IQ brains ar

(Roman, 2018) (Haier, 2017) (Ganjavi, 2011) (Koenis, 2015) (Haier, 2004) (Wilke, 2003) (Frangou, 2004) (Shaw, 2006) (Lewis, 2018) (Burgaleta, 2014) (Roman, 2018)



gro-gifted.org

EXECUTIVE FUNCTION (EF)

"If I'm so smart, why can't I find my keys?" - S. Wollum



Organization

Organizing things, time, or procedures

Multitasking

Keep track of more than

Keep track of more than one thing at a time

Planning, time management
Breaking down projects



Regulation

Impulse control, inhibition, self-control
Sustaining attention through distraction
Waiting to speak until it's your turn
Mental flexibility
Black & white thinking
Initiating, getting started

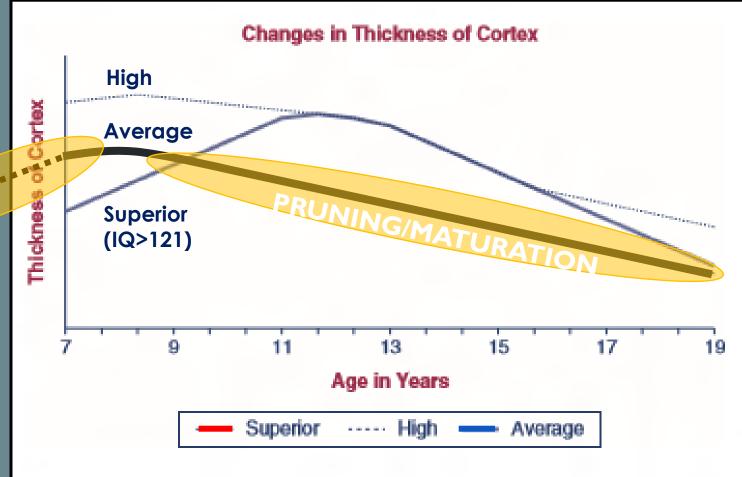


Figure 1.2 Changes in the thickness of the brain's cortex between the ages of 7 and 19 in individuals of superior, high, and average intelligence.

PHYSICAL DIFFERENCES IN BRAIN DEVELOPMENT

(SHAW ET AL., 2006)



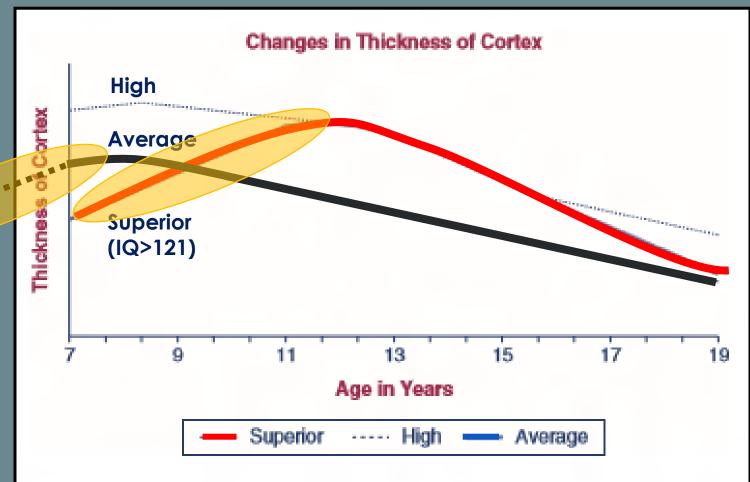


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PHYSICAL DIFFERENCES IN BRAIN DEVELOPMENT

TIMELINE FOR BRAIN GROWTH & EXPANSION



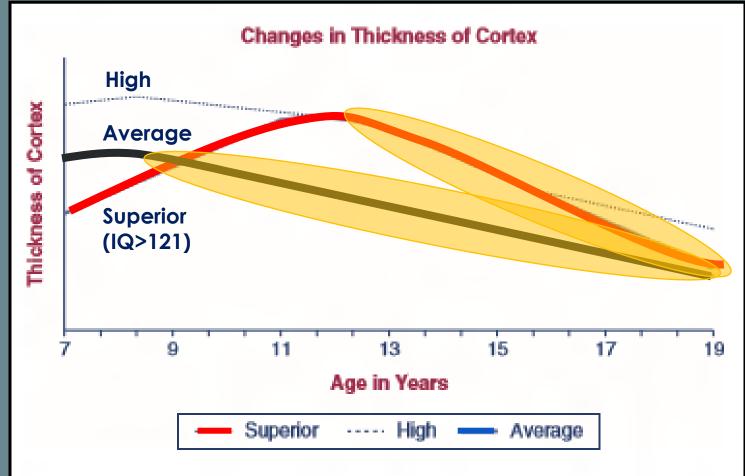


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PHYSICAL
DIFFERENCES
IN BRAIN
DEVELOPMENT

TIMELINE FOR PRUNING & MATURATION



A DIFFERENT RESEARCHER SAYS:

"Kids who had higher IQs to begin with seemed to have an extended period in adolescence during which they retained the ability to learn at a rapid pace, just like much younger children."

(Brant et al., 2013)



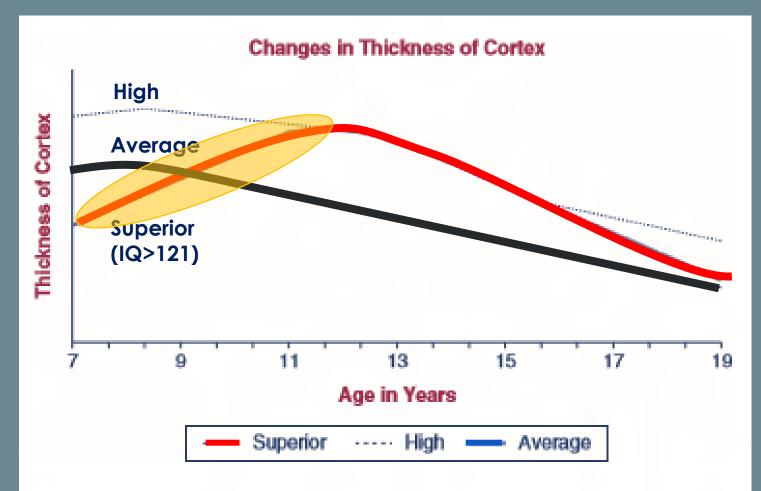


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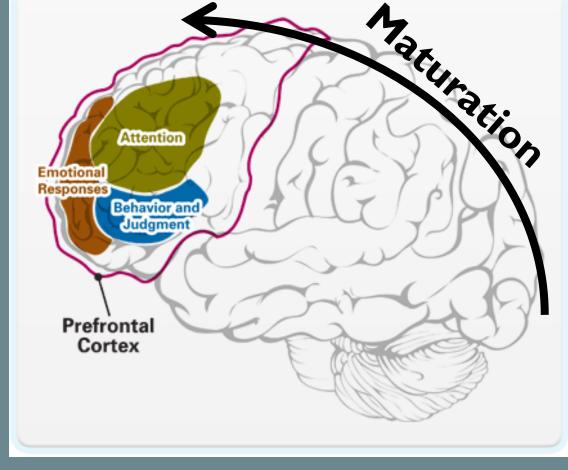
TIMELINE FOR BRAIN GROWTH & EXPANSION



YOUR BRAIN MATURES BACK TO FRONT

"Grey matter thickens in childhood but then thins in a wave that **begins** at the back of the brain and reaches the front by early adulthood" (Powell, 2006)

"The prefrontal cortex is the decision-making part of the brain, responsible for [the] ability to plan and think about the consequences of actions, solve problems and control impulses."



"Executive Function"

SMART + ERSY

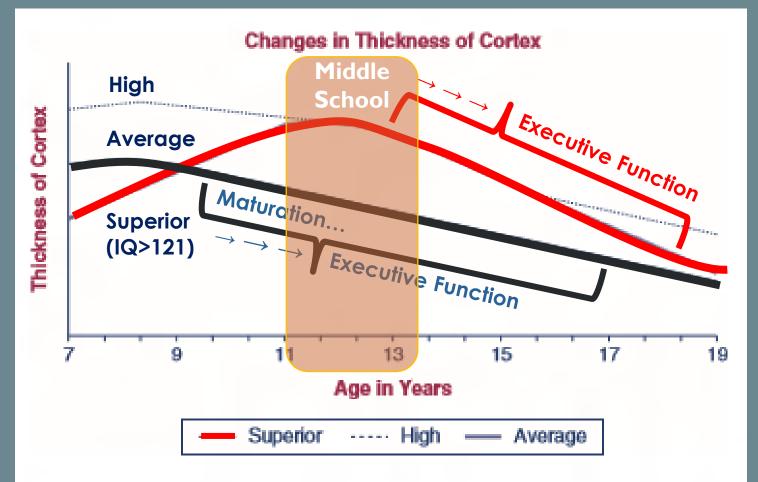


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PHYSICAL DIFFERENCES IN BRAIN DEVELOPMENT

EXECUTIVE FUNCTION DEVELOPS LATER?



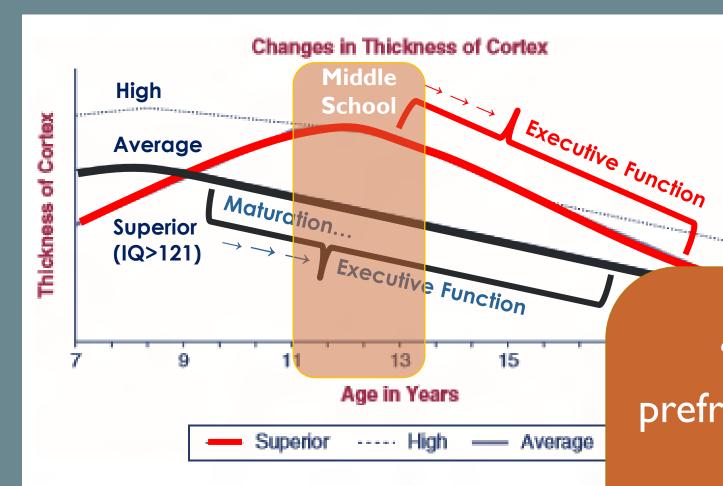


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PHYSICAL DIFFERENCES

"The maturation of the prefrontal cortex of gifted children is often delayed, compared to other children, but then catches up unusually rapidly."

(Willis, 2009)

WHAT TO DO?

- Late bloomers may catch up in time (or not)
 - It might take until their 20s...
 - Typically 10th-11th grade
- Tough love doesn't work
 - Are report card grades measuring subject mastery or executive function?
- Need MORE scaffolding & support for executive function
 - Through middle school & early high school
 - Just like ADHD support

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Initiating, getting started

10 WAYS TO SUPPORT EF

- 1. Make time visible (schedules, calendars, timers, tech)
- 2. Visible cues, charts, checklists for EVERYTHING
- 3. Folders, not binders
- 4. Keep a "master binder" of all handouts/homework/worksheets
- 5. Have extra pencils/markers/rulers/etc available
- 6. Pre-planning to break down big projects
- 7. Graphic organizers, sticky notes & highlighters
- 8. Homework reminders; flexible late/missing policies
- 9. Class time to update the planner & organize backpacks/folders/desks SMART + ERSY
- 10. Follow students' plans (IEP & 504)



SUPPORTING EXECUTIVE FUNCTION



Teaching Skills, Tools & Habits



Ongoing, Hands-on Help to Know WHEN to use the Tools

THE GIFTED BRAIN IS LIKE

A Ferrari...



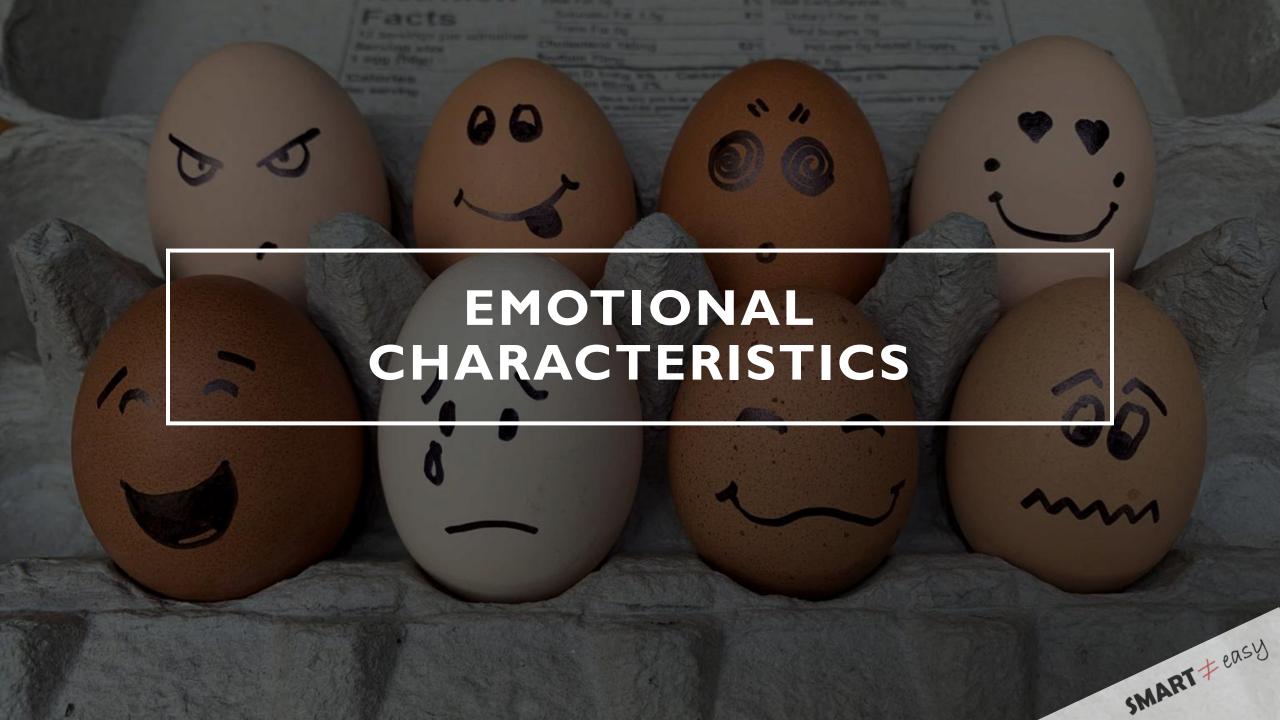


with a tiny steering wheel

Neuroscience Common Link:

Lack of Inhibition!





3 COMMON CHARACTERISTICS

perfectionism

intensity sensitivity

SENG: Supporting Emotional Needs of the Gifted (www.sengifted.org)

SMART + easy

PERFECTIONISM

- Erase a hole in the paper
- Impatient with others who aren't "doing it right"
- Meltdown at the first sign of trouble
- Can't make a decision
- Reach for impossible goals
- Hate criticism, Dwell on mistakes
- Trouble accepting compliments
- Unwilling to start, afraid to try, "I don't want to"
- "Challenge Cards" in the corner of the classroom may not work...

SMART + easy

SENSITIVITY

- Too loud: fireworks, movies, toilets
- Too scary: movies, even Disney ones!
- Crying when another kid gets hurt
- Concern about the tigers going extinct
- Scratchy tags in clothing, buttons, sock seams...
- Low pain tolerance
- Bathing/swimming: water in my eyes/nose!
- Picky eater foods touching, textures, smells
- Food sensitivities/allergies
- Big reactions to minor setbacks, discipline
- Sensory seeking loves snuggling, soft fabrics...
 - Or, hates to be touched...

INTENSITY

- Tears of joy at a beautiful sunset
- So focused they don't "hear" you
- Obsessions about a topic of interest
- Difficulty with transitions
- Big focus on fairness
- Competitive: most, best, fastest, highest
- Intense nightmares, fears
- Sleep issues, hard to settle down, stay asleep
- Major meltdowns
- Mood swings: higher highs, lower lows
- Stubborn, strong-willed, inflexible

OVEREXCITABILITIES - OES

- Dabrowski's 5 "super-stimulatibilities"
 - Psychomotor Sensual Imaginational Intellectual Emotional
- Hard wired fMRI shows "Brains on Fire" (Eide, 2004)
 - Experience a more intense reaction
 - For a longer period than normal
 - To a stimulus that may be very small
- (Not all gifted kids have OEs)
- Honor it! Coach how to cope with it, not change it



OVEREXCITABILITIES - OES

OEs may be

another lens for

understanding

ADHD and/or

Autism

- Dabrowski's 5 "super-
 - Psychomotor Sensu
- Hard wired fMRI shows
 - Experience a more intense reaction
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Neuroscience: Lack of Inhibition Larger Amygdala Neurodiversity

OEs aren't an accident; they support higher intelligence.

More energetic
Imagine deeper
More curious
Hear more
See more
Feel deeper

TAMING THE WORRY MONSTER

From Dr. Dan Peters, Summit Center

- Amygdala is the seat of emotion & worry
 - Tries to trick you, exaggerates, lies, "takes over"
- Big brain surrounds the tiny amygdala
- Use your big brain to keep your amygdala from taking over
 - Keep your brain fed and strong nutrition matters!
 - "Boss it back!"





WHAT CHARACTERISTICS DO YOU RECOGNIZE IN YOUR "CHAIR" STUDENT?

In your other students?



SOCIAL DEVELOPMENT

INTROVERTS VS. EXTROVERTS

Introverts

- Get energy by being alone
- Stereotype: quiet, shy, reserved, need processing time, think before talking, prefer Ion-I over groups, want a few good friends
- But, some can be very social with a time limit

Extroverts

- Get energy by being with other people
- Stereotype: outgoing, enjoy parties, think out loud, lots of friends

INDEPENDENT VS. CONFORMIST

Independent

- March to their own drummer
- Personal desires aren't swayed by group opinions
- "To thine own self be true"

Conformist

- Want to be with the group
- Will adjust their desires to go with the group
- Want to blend in, fit in
- Sensitive to peer pressure

Introverted

30% of the general population are introverts

60% of gifted children are introverts

75% of highly gifted children are introverts

60% of gifted children are independent

Conformist

Independent

Extroverted

"

WHEN GIFTED CHILDREN ARE ASKED WHAT THEY MOST DESIRE, THE ANSWER IS OFTEN 'A FRIEND'

THE CHILDREN'S EXPERIENCE OF SCHOOL IS COMPLETELY COLORED BY THE PRESENCE OR ABSENCE OF FRIENDS.

"

Dr. Linda Silverman



AXIOMS FOR SOCIAL DEVELOPMENT

- 1. You can't force two kids to be friends
 - Authentic social connection is vital

2. Social development requires practice

3. All humans seek belonging and to be understood

SOCIAL MISMATCH

- More complex vocabulary
- More involved games, stricter rules, fairness
- Interested in niche topics, ask unusual questions
- Kids realize very early
 - They are somehow different but WHY?
- Gravitate to older kids or adults
- Feel like they have to "fake it" to make a friend
- "No one understands me" "They don't get my jokes"

SOCIAL MATURITY

- Stage I: "Play partner"
- Stage 2: "People to chat to"
 - sharing of interests
- Stage 3: "Help and encouragement"
 - uni-directional
- Stage 4: "Intimacy/empathy"
 - bi-directional
- Stage 5: "The sure shelter"
 - PG 6-7 year old vs. neurotypical 11-12+ year old
 - "A friend is a place you go to when you need to take off the masks. You can take off your camouflage with a friend and still feel safe."

On average, the higher the IQ, the more mature a social relationship the child is seeking

SOCIAL MATURITY

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bi-directional

Friends who are "just like me"

Stage 4: Intimacy/empathy

- Someone who shares your hopes and dreams.
- Someone who understands your deepest feelings.
- Someone who feels the same as you about things that are important.
- · Someone who would want to be with you if they were feeling lonely or unhappy.

On average, the higher the IQ, the more mature a social relationship the child is seeking

(Miraca Gross, 2002) study of 700 children

SMART + ERSY

ASYNCHRONOUS SOCIAL DEVELOPMENT

- Desire higher maturity level relationships
- BUT, may lack practical social & friendship skills
 - Some kids need explicit instruction
 - Or, lack of practice
 - Or, just average social skills
- ALSO, there's a difference between neurotypical social rules and autistic social rules ("double empathy problem")
- OR, a child may have great social skills
 - Can flex to match interests, play patterns of others
 - But still longs for "someone who really gets me"

HOW IT PLAYS OUT OVER TIME

- Biggest social maturity gap ages 4-9 (Gross, 2002)
 - Gifted kids looking for deeper relationships
 - But, other kids still pretty inclusive
 - So far, the gap is largely invisible
 - No one really understands me, "silent suffering"
- Social mismatch becomes visible in 4th-5th grade
 - Left out of parties, playdates, playground games

Why? What's so special about 4th-5th grade?

IN 4TH-5TH GRADE:

- Neurotypical kids just got to Stage 4
 - More focus on shared interests
 - Friends who are "just like me," cliques begin
 - Fewer birthday parties inviting the whole class
- Gifted kids often get left out socially
 - THROUGH NO FAULT OF THEIR OWN
- Everyone needs their clique. Even gifted kids.
 - It's an expected stage of social development

SOCIALLY SENSITIVE

- An offhand comment from a peer can cause serious turmoil
- Intense response to perceived rejection
 - "No one reached out to invite me to play the game"
 - "He hates me, she thinks I'm weird"
 - "I'll never have any friends"
- Coaching
 - Is it really true? Engage logical reasoning.
 - "Playful" teasing vs. "hurtful" teasing
 - Waiting for an invitation rarely works...

CONSIDER THIS SCENARIO...

- A gifted kid enters preschool with age-appropriate social skills
- In school, feels "different" from other kids, desires deep friendship, but doesn't find it
- After a few years, starts falling behind in social <u>skill</u> development due to lack of practice
- Lack of social skills makes it even harder for them to flex to find common interests with agemates.
- Loses confidence due to perceived rejection.
- Kid is visibly struggling socially, but we strongly believe that kids "need to be able to get along with all kinds of people in this world"

What should we do?

SOLVING THIS SCENARIO

- When a kid is struggling, do you:
 - (a) Keep throwing them into the deep end of the pool
 - (b) Put them in the shallow end with a float and a teacher
- Change the environment, so that they can get skill development back on track
 - · Group with similar peers: authentic connection, similarly asynchronous social development
 - Coaching & support
 - 1:1 friendship opportunities to build skills
- Neurotypical kids don't need to bridge these asynchronies to develop socially
 - ALL kids need "birds of a feather" for social skills growth
 - Diversity is an unrealistic challenge for a gifted kid who is not also gifted socially



SOLVING THIS SCENARIO

- When a kid is struggling, do you:
 - (a) Keep throwing them into the deep end of the pool
 - (b) Put them in the shallow are in teacher
- Change the envir
 - Group with
 - Coaching
 - I:I friend
- Neurotypi develop socia.

Even better, prevent this scenario by providing an environment with similar peers from the beginning

relopment back on track

ous social development

nronies to

- ALL kids need "birds of a ... wt
- Diversity is an unrealistic challenge for a gifted kid who is not also gifted socially



A PORTFOLIO OF FRIENDS

- Find your clique SOMEWHERE and build skills
 - THEN branch out
- 4H/girl scouts/boy scouts/campfire
- Sports teams, especially individual sports (fencing, swimming, golf, martial arts...)
- Classmates, Neighborhood kids
- Older kids, adults, mentors
- Clubs & Contests
 - Math Club, Science Club, Olympiads, Future Problem Solvers, First Lego League, Destination Imagination, Chess, etc...
- Enrichment & summer camps for gifted
 - UW Robinson, CTY, SIG, Davidson, SATORI, Yunasa, ...
 - Big list: http://www.nwgca.org (Resources)

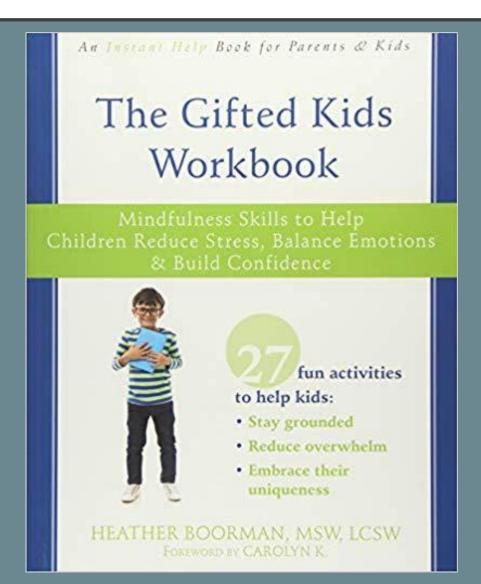


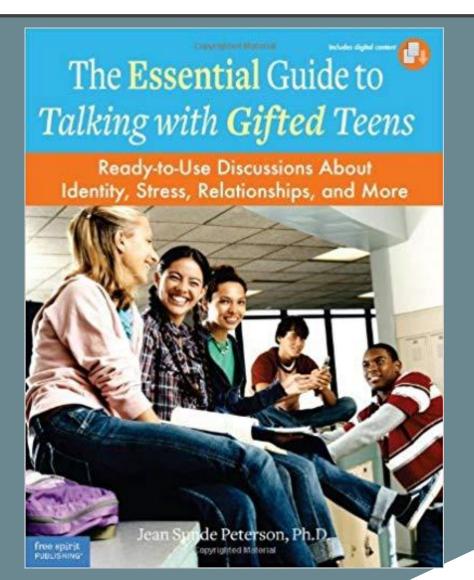
GIFTED PROGRAMS CAN HELP SOCIALLY

- Program models that place gifted children with other similarly asynchronous gifted peers
 - Full-time classrooms
 - Cluster grouping
 - Pull-out programs
 - Walk-to-math, walk-to-reading
- Serving the whole child is more than just appropriate academics
 - Prioritize social & emotional development
- Is it Autism? Socially delayed? Quirky?
 - OR Lack of appropriate social environment?



GIFTED SEL CURRICULUMS NOW EXIST!





SMART + ERSY



WHAT'S ONE WAY YOU CAN SUPPORT SOCIAL DEVELOPMENT IN YOUR "CHAIR" STUDENT?

BIO BREAK

See you back here in 10 minutes





WHO ARE THE TWICE-EXCEPTIONAL (2e)?

Bright, gifted, talented, highly capable, TAG, and/or high IQ

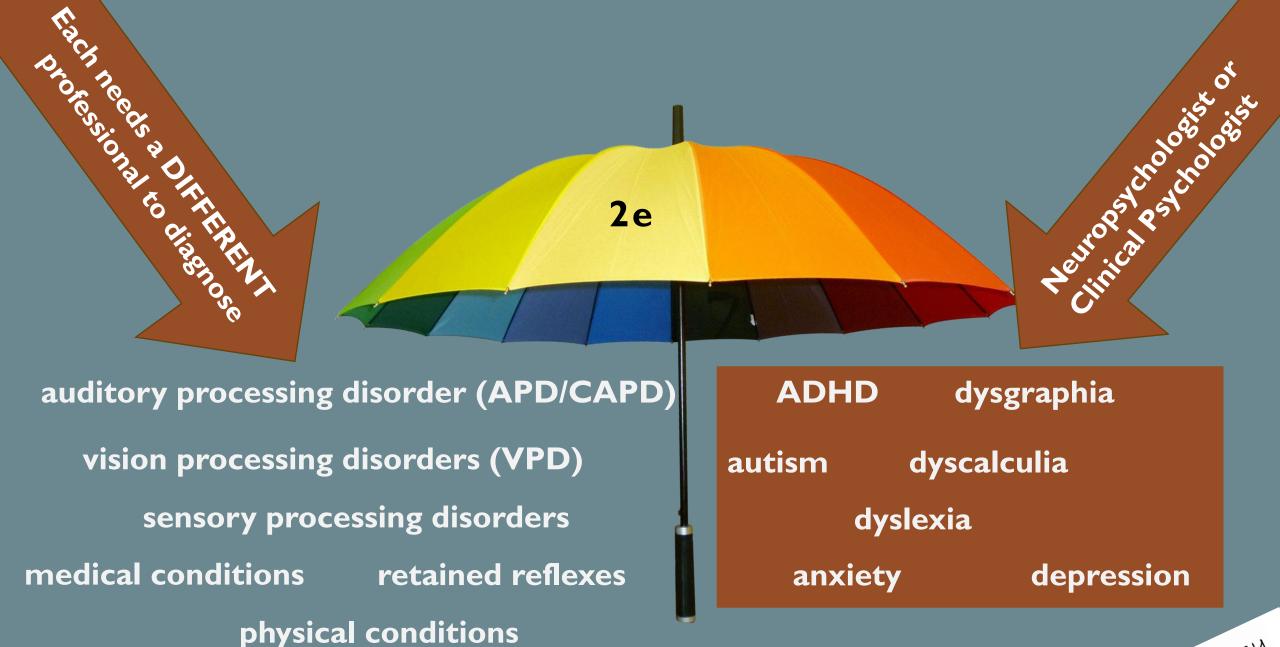
<u>AND</u>

Neurodiversity, disability, learning difference, mental health concern, and/or other challenge

"Their gifts may mask their disabilities and their disabilities may mask their gifts."

(Reis et al., 2014, p. 222)

SMART + easy



PANDAS/PANS sleep problems

SMART + ERSY

NEURODIVERSITY, ANOTHER LENS ON 2E

- Neurodiversity is not just about autism
- Different brain "operating system," patterns of strengths and challenges
- Careful: neurodiverse brains are not "worse" (or "better")
 - They are DIFFERENT
- Many common diagnoses are better understood as neurodiversity
 - ADHD strengths in quick response time, acting under pressure, noticing changes
 - Dyslexia strengths in visual/spatial, creativity, big picture, entrepreneurial
 - Autism strengths in spotting patterns, details, logic



WHAT DOES 2E LOOK LIKE?

- explosive behavior
- distractible
- trouble finishing work
- trouble getting started
- great at talking, but not on paper
- anxiety
- perfectionism
- low frustration tolerance
- impulsive
- overexcitabilities?

Easy to Misunderstand
"lazy"

"unmotivated"

"doesn't care"

"mis-identified as TAG"

Probably a lot more gifted kids are 2e than we think. Maybe even the majority, especially among highly gifted.

BEHAVIOR IS COMMUNICATION

- When a 2e student is having a hard time, you will see it in their behavior
- "Not won't, CAN'T" "Kids do well when they can." Dr. Ross Greene
- "Shifting from addressing behaviors to trying to understand their origins and triggers means making a shift from managing our children to understanding them deeply." – Dr. Mona Delahooke
- "It's never about lazy." Dr. Austina De Bonte

WHY DIAGNOSIS MATTERS

"Why do you need a label?

Because there is comfort in knowing you are a normal zebra, not a strange horse.

Because you can't find community with other zebras if you don't know you belong.

And because it is impossible for a zebra to be happy or healthy spending its life feeling like a failed horse."

The important part is that the label is ACCURATE
Find the correct root cause(s)



WHY DIAGNOSIS MATTERS

- Accurate diagnosis helps build positive self-concept
 - "Lazy," "Unmotivated," Try harder" is harmful
- Applying the wrong supports causes frustration when they don't help
 - Wasting time that could be spent developing strengths
- Early intervention works better neuroplasticity!
 - Dyslexia intervention in 1st or 2nd grade is **twice** as effective as in 3rd (Lovett et al., 2017)
- 2e students are masters of masking & compensating
- Accurate diagnosis is tricky! It's probably not just one thing...

WHY DIAGNOSIS MATTERS

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Realize that you're playing the game in hard mode



- 2e students are masters of masking & compensating
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BUCKET THEORY

- Everyone has a bucket to handle adversity
- As challenges stack up, they fill up your bucket
- When your bucket overflows, that's overwhelm

Game Plan

FIRST, STOP FOCUSING ON THE TRIGGERS

Identify the rocks in your bucket

- a Get them out
- b Make them smaller
- c Self-understanding (Predict!)

Create more space for resilience



Bucket by farra nugraha; Rocks by James Cottell and Sean Maldijian from Noun Project (CC BY 3.0)



LOOK FOR THE ROOT CAUSE(S)

- There's a reason. Find the reason.
 - "Kids do well if they can." Dr. Ross Greene
- Find ALL of the causes
 - You need DIFFERENT practitioners
 - Start at foundations (vision, auditory, etc.) and work up
- Different strategies for different causes
 - Interventions
 - Tools
 - Accommodations
 - Understanding (Neurodiversity-affirming, Strength-focus)

Symptoms
Behaviors
Challenges

Causes

SMART + ERSY

10 FLAVORS OF 2E

- The most common flavors of 2e
- Many 2e kids have more than one flavor
- Teachers are NOT qualified to diagnose (or even suggest)
 - But having awareness of the possibilities will help you problem solve
 - And better understand any diagnoses in kids' IEPs and 504s



VISION PROCESSING DISORDERS (VPD)

Common but subtle – worth screening anyone having trouble How the brain processes what the eyes see

Many flavors: Convergence insufficiency, teaming, tracking, 3D, distance vs. near

Letters/words/numbers flip (b d p q), move, or get blurry

Goofy mistakes in math (+ - x)

Clumsy, trouble with sports & balls, dislikes 3D movies/rides

Fatigue, lack of stamina when reading, especially with small fonts

Inconsistent scores on standardized tests

NOT dyslexia, but it's common to have both

SMART + ERSY

VISION PROCESSING DISORDERS (VPD)

Common but subtle – worth screening anyone having trouble

How to Help

Interventions

- Diagnose with a specialist (covd.org)
- Vision therapy is effective at any age

Accommodations

- Slant board
- Large print
- Enlarge worksheets or Snaptypeapp.com
- Reading guide strips
- Turn notebook paper on its side for math

NOT dyslexia, but it's common to have both

AUDITORY PROCESSING DISORDER (APD)

Hearing is normal or super-sensitive

One ear "hears" a split second before the other

Wears hats, hoods, long hair, headphones

Dislikes noisy environments, trouble understanding in background noise

Fatigue, comprehension problems in lecture halls, big classrooms

Slower conversational timing (social!)

Rising anxiety/fatigue/frustration through the day

May look like ADHD, ODD, PDA, explosive behavior, or withdrawal

Common reason for classroom overwhelm/behavior

2

AUDITORY PROCESSING DISORDER (APD)

Hearing is normal or super-sensitive

How to Help

/ Interventions

Auditory therapies (many options; mixed results)

Tools

- Ear filter (ablekidsfoundation.org)
- Low gain hearing aids (drraestout.com)
- Headphones (Playing music! Not pure quiet)

Accommodations

- Teacher always uses microphone!
- Preferential seating away from noise
- Check in with student for understanding
- Auditory breaks during the day

RETAINED PRIMITIVE REFLEXES

- Primitive reflexes should have integrated by early childhood
- If still present, can cause a wide variety of concerns:
 - Trouble sitting still, poor coordination, motion sickness, anxiety, trouble with handwriting, unusual posture, unusual gait, toe walking, emotional dysregulation, balance/vestibular issues, clumsiness, ...
- Moro startle reflex sensitivity to stimuli, sounds, tactile, lights, etc.
 - There are about a dozen others

3

RETAINED PRIMITIVE REFLEXES

Primitive reflexes should have integrated by early childhood

• |f

How to Help

Interventions

- Exercises to re-integrate reflexes
- OT can handle the most common ones
- Search online, or work with a specialist (senseenabled.com)

Accommodations

- Allow movement in class (walking lane)
- Provide alternate seating (standing, wobble chair, etc.)
- Provide fidget tools
- ADHU
- Autism

3

AUTISM

- Probably way more common than we think, especially in girls (#actuallyautistic)
- Different brain operating system not broken, different
- Creates challenges in unsupportive environments
 - DSM lists distress responses of autistic individuals in unsupportive environments
- Essence of Autism
 - Sensory differences (interoception, tactile, auditory, visual, etc.)
 - Autistic social patterns (see: Double Empathy Problem)
 - Monotropism (Special Interests SPINs, focus on details over big picture)
- Anxiety, irritability, perfectionism, prone to getting overwhelmed
- Non-Clues: eye contact, empathy, social, affectionate, humor, creativity

AUTISM

Probably way more common than we think, especially in girls (#actuallyautistic)

How to Help

Interventions

- ABA avoid! Pretending to be "normal" today → Burnout later
- Instead: Neurodiversity-affirming counseling/coaching

Accommodations

- Executive function supports
- Social supports (form a group with other 2e/autistic students)
- Support specific individual needs (sensory, living space, etc.)

Understanding

- Self-understanding as neurodiverse, not broken
- Decide where to spend your energy

ents

(STEALTH) DYSLEXIA

- Reads everything as a sight word, trouble sounding out
- Phonological awareness, trouble with rhyming & wordplay
- Trouble with spelling, writing, grammar
- Skips or substitutes words when reading
- Inconsistent scores on standardized tests
- Trouble with rote memory
- Despite this, excellent comprehension

Free oral screener for dyslexia - www.thepasttest.com

(STEALTH) DYSLEXIA

P

How to Help

Interventions

Dyslexia-specific tutoring in structured literacy (phonics, etc.)
 with a focus on spelling/writing

Accommodations

- Audiobooks, text-to-speech
- Dictation, speech-to-text, or a scribe
- Typing all assignments/assessments (SnapTypeApp.com)
- Access to spellcheck for all classwork/assessments
- Extra time for assignments/assessments
- Provide written notes, scribe, allow recording

F

DYSCALCULIA

- Less well understood than cousin dyslexia
- Difficulty with judging quantities, less vs. more
- Lack of number sense
- Trouble with calculations
- Can memorize some sequences but not understand why

- Good math problem solving skills, but trouble remembering math facts?
 - → Consider dyslexia



DYSCALCULIA

- Less well understood than cousin dyslexia
- Difficulty with judging quantities, less vs. more
- I ack of number sense

How to Help

Accommodations

- Provide manipulatives
- Provide number line, hundreds chart
- Provide multiplication table
- (Provide calculator)
- → Consider dyslexia

6

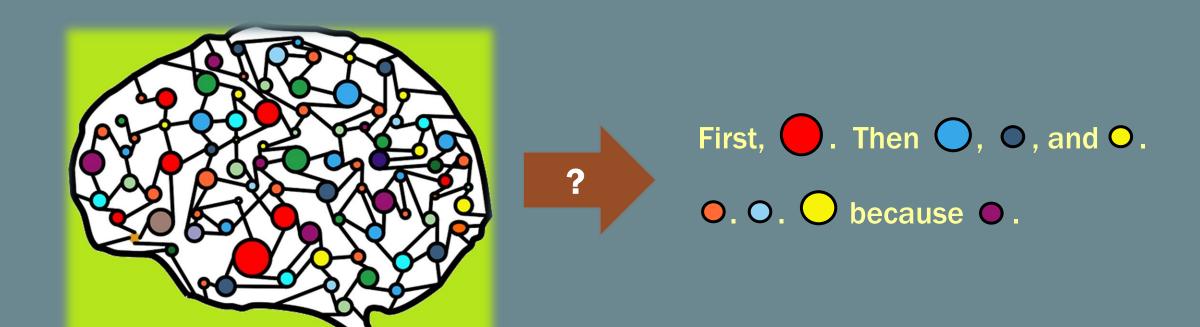
WRITING CHALLENGES (DYSGRAPHIA ETC)

- Many causes:
 - Physical/motor challenges, strength, pencil grip (OT)
 - Lack of motor automaticity in writing letters/numbers
 - "Lazy 8 Motor Memory Technique" (early elementary)
 - Vision Processing Disorders (VPD)
 - Dyslexia (especially spelling)
 - Trouble getting ideas out, organizing thoughts



Figure out the specific cause(s)

THIS IS A TOUGH TRANSITION



Lots of interconnected ideas in brain

linear writing, one word at a time



HOW TO HELP

- I. Get ideas out of brain in a messy way
- 2. THEN organize where you can see it How?
 - Sticky notes
 - Mind map
 - Drawing
 - Dictation
 - Scribing
 - Walk & talk

Topic/paragraph graphic organizers WON'T HELP in step 1

Why? They impose order too soon

Help each student find what works for them



WRITING CHALLENGES (DYSGRAPHIA ETC)

• Many causes:

How to Help

Figure out the specific cause(s)!

Interventions

• Writing coaching (braindump ideas in a messy way, then organize)

Accommodations

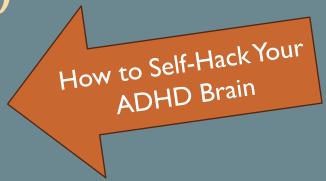
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- Access to spellcheck for all classwork/assessments
- Extra time for assignments/assessments
- Provide written notes, give alternate assignments

ADHD

- Types: Inattentive, Hyperactive, Combined
- Not lack of attention, but trouble <u>regulating</u> attention
- Can focus when: (INCUP)
 - Interesting
 - Novel
 - Challenging
 - Urgent/Pressure

(Dodson, 2018)

NOT: rote, boring, easy, even if very important



Trouble getting started

Staying on task

Time management

Breaking down big projects

Executive function

Can produce when interested in the topic

"Interest-based nervous system"



ADHD RESEARCH

- Movement in ADHD kids increases reaction time & oxygenation in Dorsolateral Prefrontal Cortex (Hoy et al., 2024)
- ADHD kids move more when working memory is needed (Orban et al., 2017)
- Fidgeting in ADHD adults appears to increase sustained attention (Son et al. 2024)
- ADHD kids who had more intense movement had better performance on a cognitive task (Note: TD children performed worse with movement) (Hartanto et al., 2015)
- Theory is that movement is a <u>compensation strategy</u> to maintain alertness in the ADHD brain

Let ADHD kids MOVE! It helps them THINK

SMART + easy

ADHD

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- Not lack of attention, but trouble <u>regulating</u> attention
- Can focus when: (INCUP)

Trouble getting started

Staying on task

How to Help

Interventions

ADHD meds can help (and may be therapeutic)

Accommodations

- Executive function supports (scaffold, reminders, cues, body doubling)
- Make things INCUP (Interesting, Novel, Challenging, Urgent, Pressure)
- Beware: "extra time" may not help

pic

ith

"Interest-based nervous system"

ADHD LOOKALIKES

- "A true diagnosis of ADD/ADHD should be as a last resort made by exclusion after ruling out other possible factors such as:
 - depression, anxiety,
 - learning disabilities,
 - preoccupation with personal issues,
 - unrealistic expectations, situational difficulties and abilities and expectations,
 - auditory processing deficits,
 - mild brain injury, ill health, substance abuse,
 - lack of sleep and/or nutrition, current use of med (Webb et al, 2005)

Vision processing (VPD) Auditory processing (APD) Sensory processing (SPD) Retained reflexes Sleep apnea Allergies (food or environment) Sensitivity to food coloring Chemical sensitivity Mold sensitivity PANDAS/PANS

SLEEP APNEA (AND OTHER SLEEP DISTURBANCES)

Sleep apnea in kids/teens (and even some adults) can be silent
 No gasping, night waking, snoring, etc.

REM sleep is needed for consolidating and storing long-term memory Lack of quality sleep can cause symptoms identical to ADHD

Easy to rule in/out with a sleep study

9

SLEEP APNEA (AND OTHER SLEEP DISTURBANCES)

Sleep apnea in kids/teens (and even some adults) can be silent
 No gasping, night waking, snoring, etc.

How to Help

Interventions

- Remove tonsils
- Release tongue tie
- Orthodontic palette expander
- Nose/sinus surgery (deviated septum)

Tools

CPAP machine for sleeping

PANDAS/PANS (...LYME, BARTONELLA, MOLD)

- Autoimmune reaction to strep (and/or other bacteria/viruses/mold)
 that creates inflammation in the basal ganglia of the brain
- Always: Irritability, Low frustration tolerance, Mood swings,
 Anxiety (especially separation anxiety, irrational, bedtime, or constant)
- Often: Sleep disturbances, OCD, Repetitive/intrusive thoughts, Tics (physical or verbal), Picky/restricted eating, Sensory sensitivity
- Sometimes: Headache, Stomachache, Urinary frequency, Bedwetting, Math or handwriting regression, Aggression, School refusal
- Does NOT have to be acute onset
- Stanford says only 40% of their PANDAS patients were acute onset



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 Anxiety (especially separation anxiety, irrational, bedtime, or constant)

How to Help

Interventions

- Medical treatment needed, MUST find a specialist
 - Neuroimmune.org http://aspire.care
 - Pandasnetwork.org inflamedbrain.org
 - Pandasppn.org

Book: A Light in the Dark for PANDAS & PANS (Crista)

efusal

onset

PROVIDING HELP THAT'S ACTUALLY HELPFUL

Different strategies for different causes

Figure out the correct root cause(s)

Interventions

Vision therapy for VPD, Tutoring for dyslexia, Reflex integration, Occupational Therapy, Medication for ADHD, Treatment for medical issues

Tools

Ear filter/LGHA for APD, Assistive technology for dyslexia & VPD & writing

Accommodations

Preferential seating, written notes, notetaker/scribe, teacher uses microphone, extra time, large print, audio books, etc.

Understanding: Neurodiversity-affirming, Strength-focused

For autism, ADHD, dyslexia, dysgraphia, and everything...

When in doubt,
Provide more support



Rewarding neurotypical learning styles teaches ALL kids that neurotypical brains are superior.

This is harmful to neurodivergent kids.



CREATE A NEURODIVERSITY AFFIRMING CLASSROOM & HOME ENVIRONMENT

Infographic by #neurowild on Instagram & Facebook

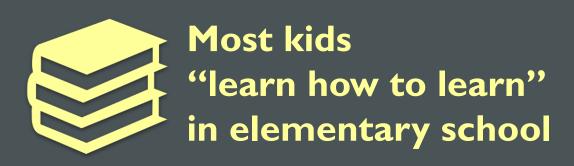


Share one thing you just learned that will help your "chair" student

THE BRIGHT STUDENT DILEMMA

What do grit and growth mindset have to do with it?

THE BRIGHT STUDENT DILEMMA



Reading, spelling, subtraction, multiplication, etc.

Learning to tolerate confusion, recovering from mistakes, asking for and receiving help...

Building persistence, perseverance, grit, growth mindset

Time management, study skills (middle school)



Bright students already know most of the curriculum

School is too easy, not challenging

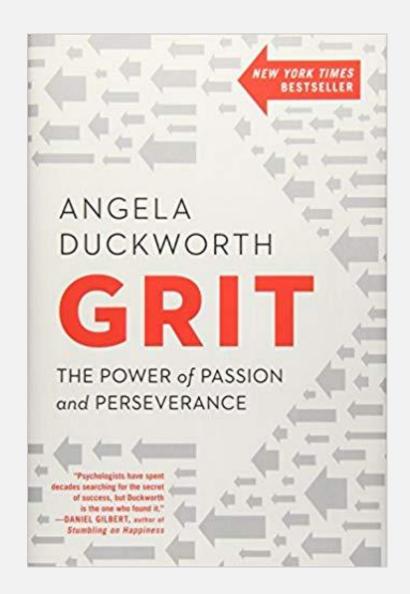
Two implications:

- I. Lack of opportunity to build these skills
- 2. Any 2e disabilities remain hidden



GRIT >> IQ (2016)

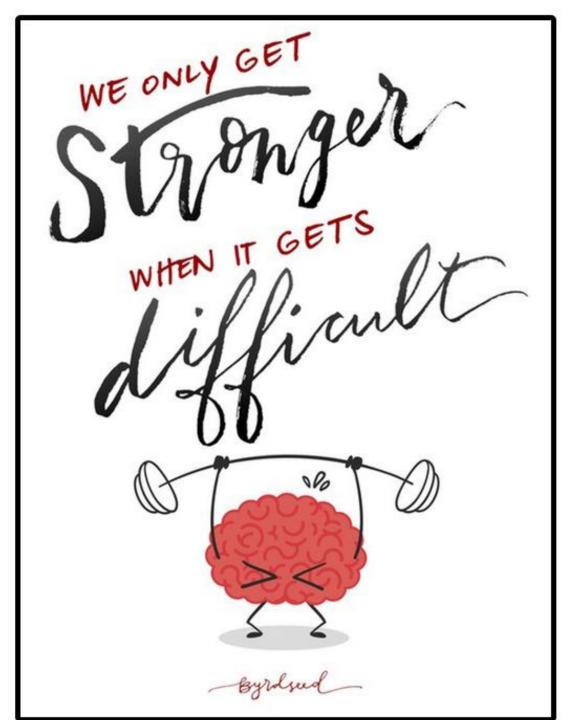
- Duckworth studied success at:
 - West Point Military Academy
 - National Spelling Bee
 - High school juniors, 8th graders
- "It wasn't social intelligence. It wasn't good looks, physical health, and it wasn't IQ.
 It was grit."
- "Self-discipline predicted academic performance more robustly than did IQ."
- "In our data, grit is usually unrelated or even inversely related to measures of talent."



GROWTH MINDSET (2006)

- "Effort Effect"
 - Kids who were told they were smart didn't try as hard next time
 - Kids who were praised for <u>effort</u> did better
- Takeaways
 - Don't praise kids for being smart
 - Praise <u>real effort</u> and progress (not results)
 - "Keep on trying..."
 - "Practice really works!"

"Everyone should own this book." -CHIP HEATH & DAN HEATH, authors of Made to Stick and Switch mindset THE NEW PSYCHOLOGY OF SUCCESS **HOW WE CAN LEARN TO FULFILL OUR POTENTIAL** *parenting *business *school *relationships CAROL S. DWECK, Ph.D.



"THE BRAIN IS LIKE A MUSCLE. IT NEEDS A WORKOUT TO GET STRONGER."

POSTERS & LESSON
PLANS
BYRDSEED.COM

IQ ALONE DOES NOT PREDICT "SUCCESS"

- Two longitudinal studies of exceptionally gifted individuals
 - Terman Study (1921-1993)
 - Study for Mathematically Precocious Youth (1972 ongoing)
- Overrepresented with affluent white males
 - Under-rep: non-white, low-income, EL/ML, twice exceptional, girls
- On <u>average</u>, high IQ individuals were more successful (degrees, occupation, leadership positions, creativity, ...)
- BUT look at the median... More than 60% of men, and 80% of women had a salary of LESS than \$100,000 (SMPY, 2004)
 - A few individuals were "exceptionally successful" and raised the average
 - Most gifted individuals lead typical adult lives



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had a sal

A few in

Most gift

What Predicted Success?

The most successful individuals had support & acceleration



SMART KIDS AT A DISADVANTAGE

- When not challenged in school, LESS likely to develop
 - Grit & perseverance
 - Tolerance for failure
 - Growth mindset
 - Time management, study skills
- It's hard to truly challenge a gifted kid
 - They are capable of a LOT more than they let on
 - Perfectionism leads them to stay away from challenges that they aren't sure they can tackle

THE CENTRAL CONCEPT



Provide experiences with genuine challenge

Teach grit & growth mindset in an area of STRENGTH (not disability)

VYGOTSKY'S ZONE OF PROXIMAL DEVELOPMENT (ZPD)

STATION OF CONTROL OF THE PARTY OF THE PARTY

Safe Zone

Too Easy

Learning Zone (ZPD)

Student is successful

WITH scaffolding & instruction

70,00

Danger
Zone
Too Hard

Goal: To build grit, every student should be in their Learning Zone at least once a day

RT + easy

PROPOSED LINGO: "JUST RIGHT LEARNING LEVEL"

- Concerns
 - Different levels in same class

Reasoning: "You don't want school to be TOO EASY for any student. That's not fair."

- How do kids feel when they are not identified as TAG?
- Strong desire for inclusive practices
- Neutral lingo to normalize that some students need advanced curriculum
 - Teachers to use with students
 - Students to use with each other
 - Teachers to explain to parents
- Modeled after "Just Right Books" -> "Just Right Learning Level"

SMART + ERSY

BUILD UP PERSISTENCE & GRIT

• Where to find challenge?

- Advanced school programs
- Musical instruments, especially private instruction
- Foreign language
- Sports teams, individual sports Martial arts, swimming, fencing, tennis...
- Independent study projects, Contests, First Lego League Robotics, Chess,
 Destination Imagination, Future Problem Solvers, etc.
- Discuss perfectionism openly
- Let kids struggle and fail (within reason)
- Insist on persevering through challenge
 - Not just academics extracurriculars, sports…



ACCELERATION IS THE CONSENSUS RECOMMENDATION

2023 National Working Group on Advanced Education

- Allow children who are ready for advanced material in all subjects to skip entire grade levels
- Allow children to skip grade levels in particular subjects
- Offer "grade-compressed" pathways for students
- Offer advanced courses in as many subjects as possible in grades 6–12
- Automatically enroll students participating in elementary school advanced education programs in subsequent advanced learning opportunities in middle and/or high school

REMINDER: ADULTS DON'T HAVE TO BE GREAT AT EVERYTHING

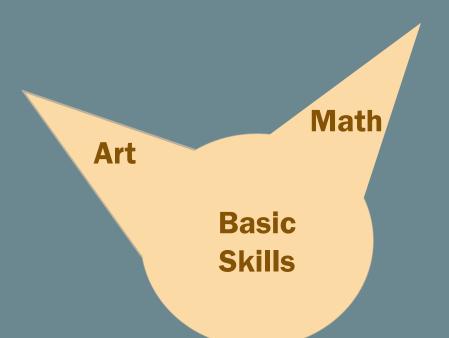


Adult careers will focus on **STRENGTHS**

Adults find "niche" environments that support or avoid their weaknesses (Armstrong, 2012)

SMART + ERSY

Spiky Strengths



Well-Rounded

Math
Reading
Science
History
Arts
Music
Athletics

Colleges are looking for "spiky" applicants!

GETTING MORE FLEXIBLE

If kids are different, and they all need to be challenged and supported in different ways, we must get more **FLEXIBLE**

REMINDER: ADULTS DON'T HAVE TO BE GREAT AT EVERYTHING

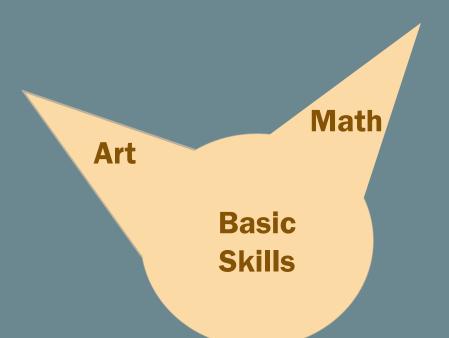


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SMART + ERSY

Spiky Strengths



Well-Rounded

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UNIVERSAL DESIGN FOR LEARNING (UDL) PRINCIPLES

- WHY: Multiple Means of Engagement
 - Make the topic meaningful for each student.
 - Connect to interests & prior knowledge

"I am interested in learning this"

- WHAT: Multiple Means of Representation
 - Use multiple modalities: text, audio, video, models, etc.
 - Provide accommodations universally, especially Assistive Technology
- HOW: Multiple Means of Expression
 - Allow students to show what they know in different ways
 - Modify assignments to highlight student strengths

MODIFY ASSIGNMENTS FOR ENGAGEMENT - INCUP

"find the hook" for each student

Interesting

 Align with a topic of interest, intro with a surprising video, authentic projects for external audiences

Novel

• Pick an unusual topic, do it upside down, with crayon, pretend you're counting aliens, do it without the letter M, get creative...

Challenging

 Set a personal goal to achieve, make the task harder, add complexity, look for connections, add abstraction, application (caveat: contests)

Urgent (Don't over-rely on this strategy!)

Create a deadline, authentic deadlines for external audiences are ideal

Pressure (Social)

• Invest in that teacher-student relationship!

How to Self-Hack Your ADHD Brain

UNIVERSAL DESIGN FOR LEARNING (UDL) PRINCIPLES

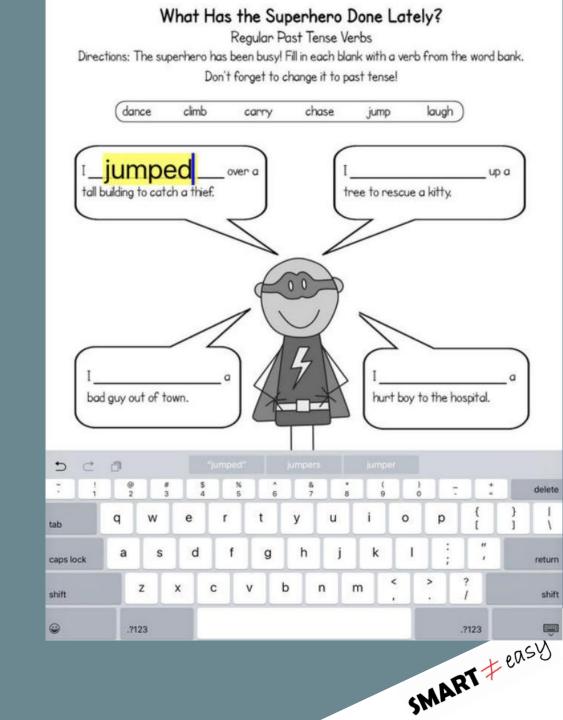
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"I learn in the best ways for my brain"

ASSISTIVE TECHNOLOGY

 Enable higher order thinking without getting bogged down in the mechanics

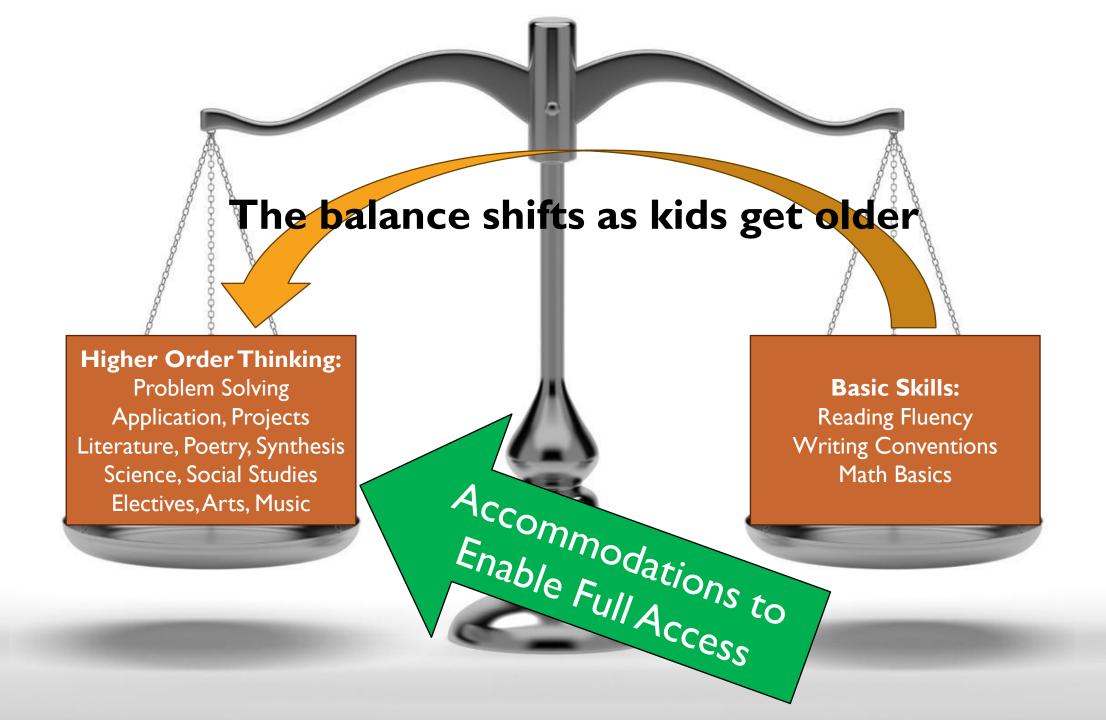
- Keyboarding/Dictation/Scribe
- Spellcheck
- Grammar tools/Grammarly
- SnapTypeApp.com (iPad/iPhone/ Chrome/Android)



UNIVERSAL ACCOMMODATIONS

- Make all learning accessible to all students
- Provide accommodations & supports to ALL students
 - Keyboarding, dictation, spellcheck, audiobooks,
 - Just like a pencil
- 2e students think accommodations are "cheating"
 if they are the only ones allowed to use them
- Many other students will also benefit
 - Most 2e students will never be formally diagnosed





gifted education matters

Be a **Talent** Scoutnot a Deficit **Detective** #uconngifted

Renzulli Center for Creativity, Gifted Education, and Talent Development

gifted.uconn.edu

UCONN

Strength Focus

Spend more time/effort on building strengths than remediating deficits

SMART + easy

UNIVERSAL DESIGN FOR LEARNING (UDL) PRINCIPLES

WHY: Multiple Means of Engagement

- Make the topic meaningful for each student.
- Connect to interests & prior knowledge
- WHAT: Multiple Means of Representation
 - Use multiple modalities: text, audio, video, models, etc.
 - Provide accommodations universally, especially Assistive Technology
- HOW: Multiple Means of Expression
 - Allow students to show what they know in different ways
 - Modify assignments to highlight student strengths

"Build up my spiky strength area"

DEMONSTRATING MASTERY VIA SPIKY STRENGTHS

- Draw a diagram
- Make a poster
- Create a slide presentation
- Draw a comic strip
- Record a podcast
- Make a video
- Build a model
- Write a letter
- Give choices...

Each kid could be doing a DIFFERENT thing based on their individual strengths

Flexible assignments

Encourage creativity

Build on student strengths

The point is <u>communication</u> of ideas



Learning only happens here

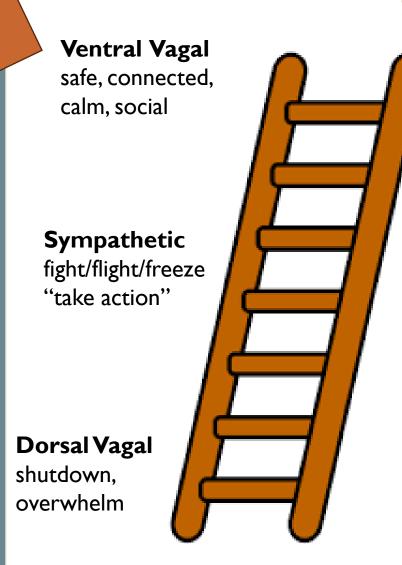
POLYVAGAL SAFETY IS ESSENT

Porges polyvagal theory

- Autonomic nervous system is constantly evaluating the environment for safety
- Co-regulation with safe, trusted others

Create a neurodiversity-affirming classroom (& home)

- Student can be their **authentic** self
- Relationship with teacher (& parents)
- Environmental safety in classroom (& home)
- Relational safety with classmates (& family)



KIDS CAN MASK & COMPENSATE SO MUCH

- Masking: pretending to be "normal" (neurotypical) to fit in, hide, or "camouflage"
- Compensating: using strengths to make up for challenge areas

- Implication #I: Masking & compensating takes ENERGY
 - We don't want kids feeling like they have to pretend all day long
 - Fatigue leads to overwhelm & dysregulation

- Implication #2: Challenging curriculum finally surfaces 2e challenges
 - Silver lining: YOU are in the best position to notice there's a struggle



HOW STUDENT NEEDS MIGHT DIFFER

- Vision Clarity
- Light Sensitivity
- Auditory Sensitivity
- Tactile Sensitivity
- Self-Regulation
- Organization Skills
- Emotional Sensitivity
- Need for Movement
- Social Differences

Our Job

Honor individual differences

Provide supports to maximize student learning

Keep supporting until development catches up

Protect from psychological harm

THE 5 ENVIRONMENTS **FOR 2E LEARNERS**



Intellectual

- Authentic and meaningful learning
- . Various modes of instruction for differing learning preferences aligning with strengths, interests and preferences



- Layout allows for multiple uses quiet area, movement, collaboration
 - Allow every student to have access to spaces

Social 3



- Establish rapport and model relationship building, both peer-peer and teacher-student
- Like a jigsaw, each student has a valuable role and contribution in the classroom community

Creative

- . Offer choices in the way students learn and show mastery of knowledge
- . Give students creative choices with learning by incorporating art, technology, games, music, and drama

Emotional (")

- Understand the asynchronies within students' chronological, intellectual and emotional ages
- · Provide a culture of acceptance, tolerance, empathy, accountability and psychological safety

Binde, Dann, Lamb, Monterusso, & Vargas

SMART + ERSY

OUR GOAL

- Every student feels safe 100% of the time
- Every student can be their authentic self MOST of the time
 - Minimize the amount of masking/compensating needed to participate
- Every student is DIFFERENT so to achieve this goal we must be





HOW WOULD WE KNOW IF YOUR "CHAIR" STUDENT FELT **SAFE**?





1 G





Jess Zeidman @jzeidz · Follo

You were "gifted your path:

- anxiety
 - depression
 - fear of failure
 - intense guilt

potential

- good at cross
- all of the abo

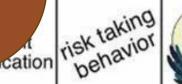
12:04 PM · Jan 31, 2019

What Causes This?

- Lack of challenge to develop grit
- Unsupported 2e
- Social isolation
- "We expect great things from you"

The problem is NOT the label. It's what you DO about the label.

	_		
0	t	thinking you're better than everyone else despite having nothing to show for it	refusing to ask for help
	COTTO DO	interest in psychology	need fo constar validatio
		thinking you're destined for greatness	nonexiste motivati
	17 (Card (Cettor)	W	not trying school/wo cuz u thin





pointless



126.6K



Reply

PREVENT GIFTED CHILD SYNDROME

DO

- Regular challenges create opportunities to build grit
- Normalize making mistakes and asking for help
- Reward effort, not results
- Be on the lookout for subtle 2e
- Provide accommodations universally (like a pencil)

DON'T

- Create a pressure cooker with a high volume of work
- ► Set unrealistic expectations
- Expect success in everything
- "We expect great things from you"
- "You're so smart, you should be able to do this"

NOT MORE WORK, DIFFERENT WORK

- Gifted education does NOT mean
 - Extra classwork or piles of homework
 - A pressure cooker, competitive environment
- Remember the goal:



- The goal is just enough challenge to <u>build grit</u>
 - This will look DIFFERENT for each student (flexibility!)
 - This happens best in each student's spiky strength area

BOTTOM LINE...

Mismatch with the environment

Smart is NOT Easy

Emotionally – Socially – Academically

Grit – Executive Function

WHY DO WE SERVE TAG KIDS?

- They are a special needs population
- Without intervention they are at risk
- Nurturing the WHOLE CHILD
- GOAL: Functioning citizens in our community

• NOT:

- To create eminent leaders (Einstein, Steve Jobs, ...)
- To send more kids to Harvard, Stanford, MIT...
- To nurture child prodigies
- To increase our international math ranking
- To improve the US economy



What are 5 ideas you are taking away from today?

Write each one on a separate card

THANK YOU

Dr. Austina De Bonte, Ed.D. austina@smartisnoteasy.com

Smart is not Easy LLC www.smartisnoteasy.com

