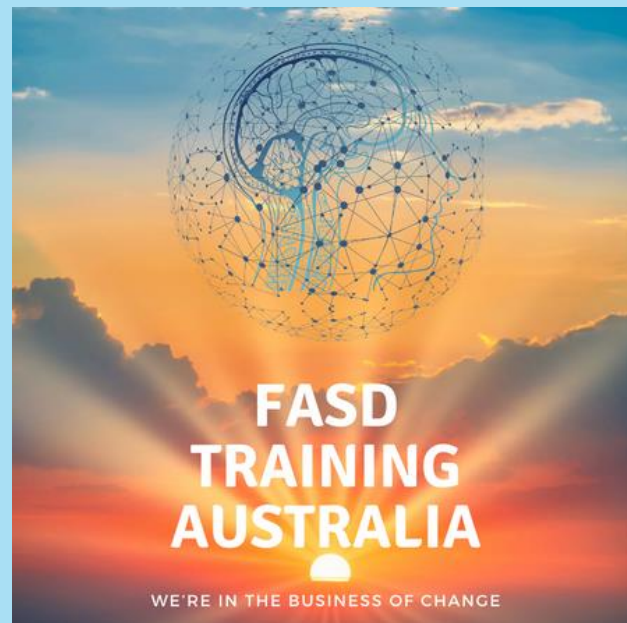


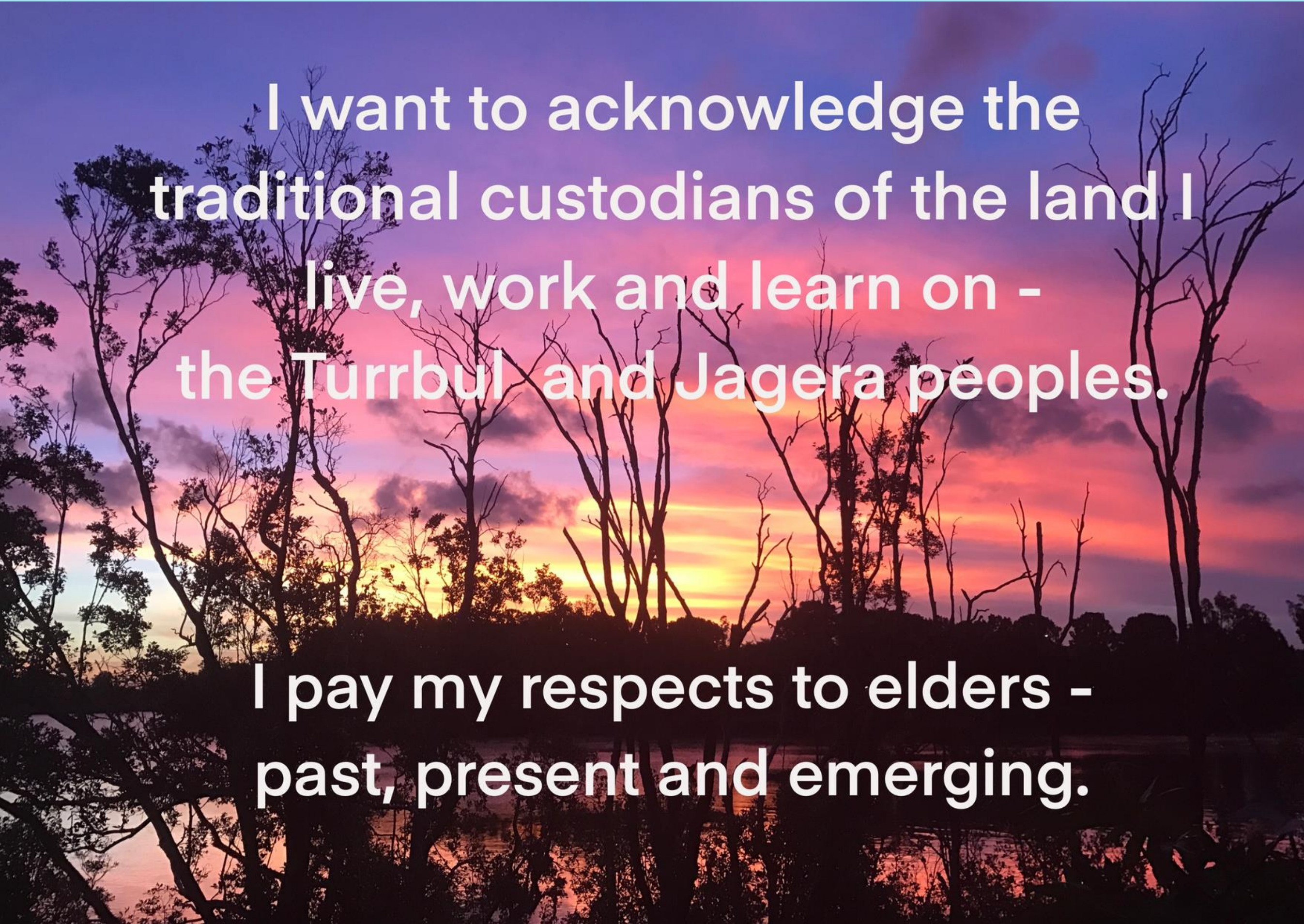
SUPPORTING STUDENTS WITH FETAL ALCOHOL SPECTRUM DISORDERS - HIDDEN DISABILITIES IN THE CLASSROOM



Dr Vanessa Spiller - 2024

FASD Training Australia/JumpStart Psychology

www.fasdtrainingaustralia.com

A photograph of a sunset or sunrise over a body of water, with silhouetted trees in the foreground. The sky is a mix of purple, pink, and orange. The text is overlaid in white.

I want to acknowledge the
traditional custodians of the land I
live, work and learn on -
the Turrbul and Jagera peoples.

I pay my respects to elders -
past, present and emerging.

RAISE YOUR HAND IF
YOU ARE SUPPORTING A
STUDENT WITH FASD?

RAISE YOUR HAND IF YOU
ARE SUPPORTING A
STUDENT WITH AUTISM?

FASD IS UP TO 2.5 X
MORE COMMON THAN
AUTISM

FASD IS MORE COMMON
THAN AUTISM,
CEREBRAL PALSY,
DOWN SYNDROME AND
SPINA-BIFIDA
COMBINED

<https://www.nofasd.org.au/wp-content/uploads/2020/09/FASD-prevalence-comparison.pdf>

FASD IS THE LEADING PREVENTABLE CAUSE OF DEVELOPMENTAL DELAY IN THE WORLD

(O'Leary et al, 2013)

UP TO 98% OF PEOPLE
WITH FASD WILL NOT
BE DIAGNOSED OR WILL
BE MISDIAGNOSED

(Chasnoff, Wells & King, 2015; Popova, 2024)

WHAT DOES FASD LOOK LIKE IN THE CLASSROOM?

STUDENTS WITH MULTIPLE LAYERS OF COMPLEXITY

- Cannot stay focused
- Act impulsively without thinking
- Verbally and physically aggressive
- Difficulties with age-appropriate tasks such as toileting
- Can't remember things even with lots of repetition
- Slow to learn but seem “bright enough”
- Wants friends but can't keep them
- Difficulties problem-solving
- Anxious
- Constantly irritable and frustrated

- Lots of big emotions and outbursts
- Difficulties using or understanding language
- Clumsy and uncoordinated
- Academic difficulties
- Repeat the same mistakes over and over again
- Sensory seeking or avoiding
- Multiple diagnoses
- Doesn't respond to usual behavioural management approaches
- Suspensions and expulsions

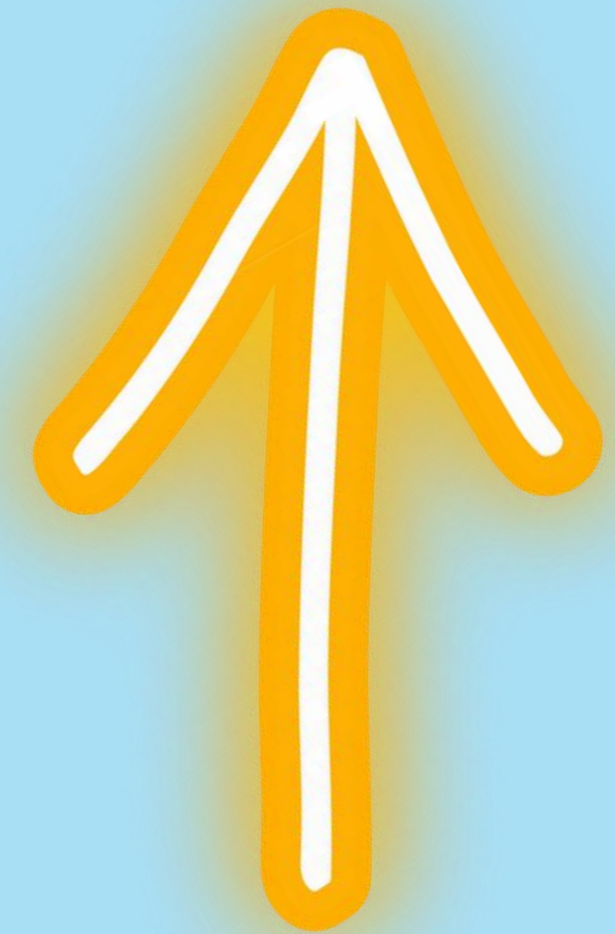
WHAT HAPPENS IF FASD & DISABILITY ISN'T IDENTIFIED?

OUTCOMES

Individuals with FASD have elevated rates of:

- disrupted education (60%)
- unemployment
- involvement in the legal system (60%)
- addictions/substance use (35 - 50%)
- mental health issues (50-90%) particularly ADHD
- inappropriate sexual behaviours (49%)
- physical health issues (38%)
- involvement with child protection (75%)
- shortened life expectancy

Barr et al, 2006; Popova et al, 2021; Streissguth et al, 2004; Streissguth & O'Malley, 2000



MY JOURNEY

Clinical Psychologist

Foster Carer

Multiple Diagnoses

Layers of Complexity

Limited Evidence-base

Strategies and approaches that
didn't work

Author, Educator and Trainer



MY JOURNEY

Clinical Psychologist

Foster Carer

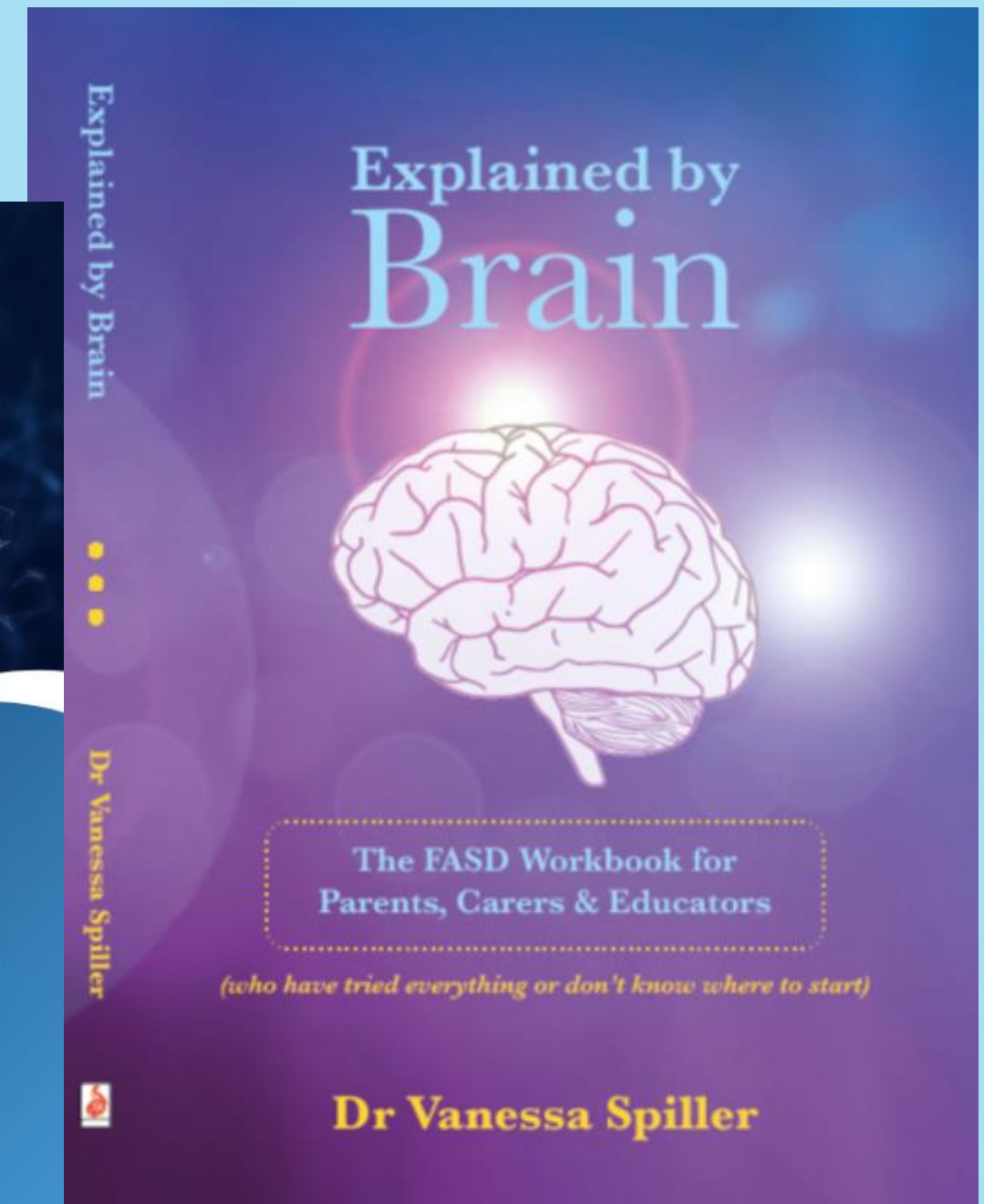
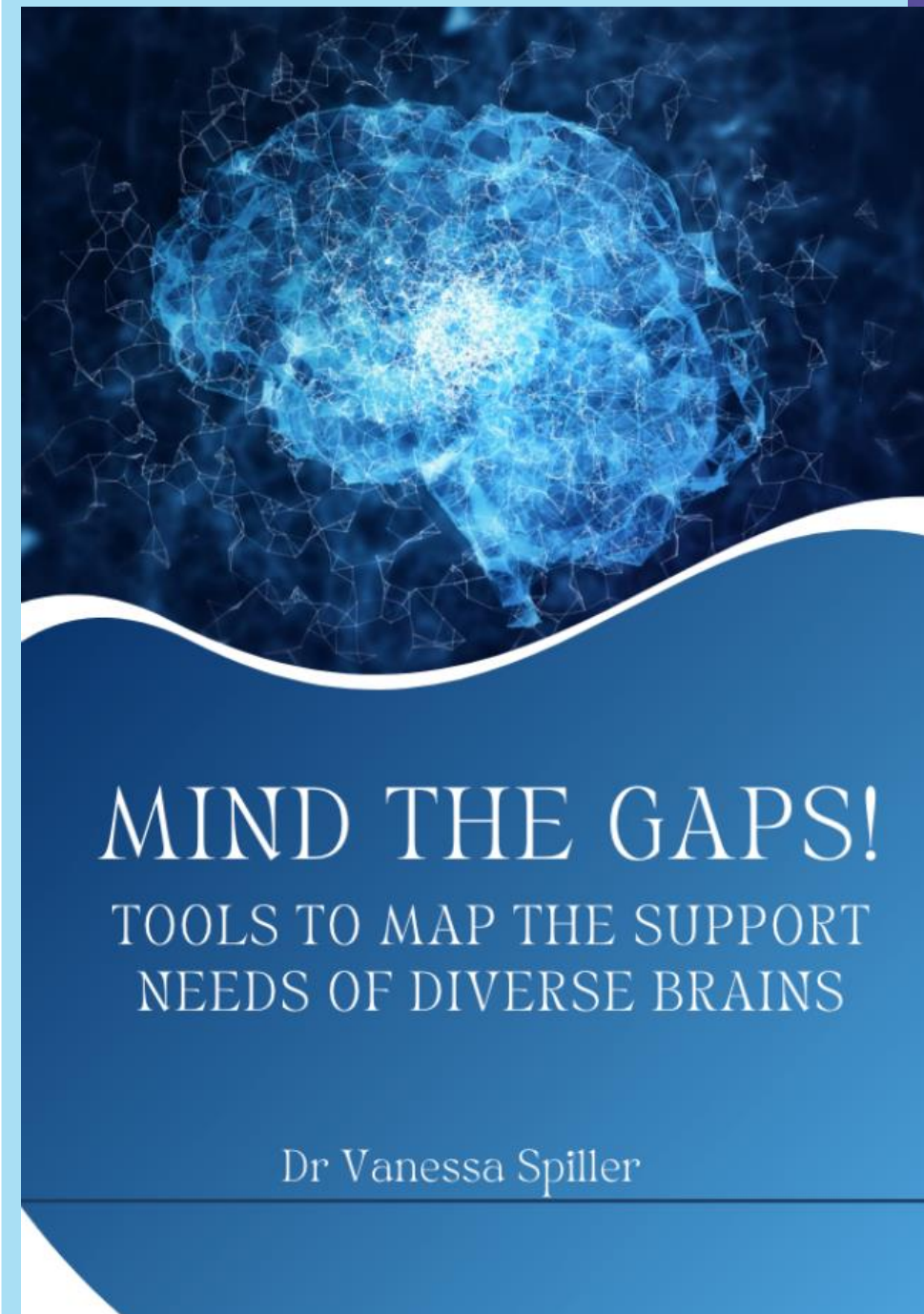
Multiple Diagnoses

Layers of Complexity

Limited Evidence-base

Strategies and approaches that
didn't work

Author, Educator and Trainer



What will we cover?

Facts and statistics about FASD

Diagnosis & Brain-based Understandings of FASD

Levels of Functioning

Foundations for Interventions & Support

Role of Educators

Further resources

Fetal Alcohol Spectrum Disorder (FASD) is the diagnostic term used to describe the neurodevelopmental and/or physical disorders that results from prenatal alcohol exposure

FACTS & STATS



FACTS & STATS

Permanent, widespread brain and body injury resulting from prenatal alcohol exposure

Alcohol is a teratogen and neurotoxin

There are no "safe" levels of alcohol use

Chung et al, 2021; (Mather, Wiles, & O'Brien, 2015)

FACTS & STATS

3% weighted prevalence in the US population

Elevated prevalence in specific sub-populations including OOHC, adoptees, Criminal Justice system

OOHC prevalence studies - 17%
(range from 11% To 24%)

No population-level prevalence studies in Australia.

No OOHC studies.

Fitzroy Cross community = 12%; Juvenile Detention = 33%

Bowers et al., 2018; Lange, et al., 2013; Popova et al, 2018, Popova et al, 2021)

FACTS & STATS

Most people with FASD are undiagnosed or misdiagnosed with another condition (98% +), worse for adults

Most people with FASD don't have an intellectual disability

Most people with FASD don't have identifiable facial features

Many have other prenatal substance exposure e.g., nicotine, cannabis, stimulants (37%)

1/5 have other maternal risk factors and adversity

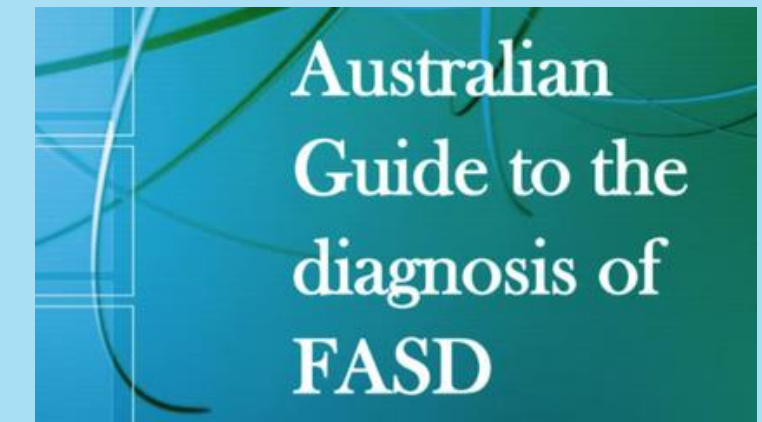
Popova et al, 2021, 2024

HOW CAN TEACHERS & SCHOOLS CONTRIBUTE?

Consider FASD as a possibility

UNDERSTANDING FASD (& OTHER COMPLEX NEURODIVERSITY)

DIAGNOSIS



Confirmed Prenatal
Alcohol Exposure

Severe impairment
in at least 3/10 brain
related domains

With or without 3
facial features

Adaptive
Functioning

Executive
Functioning

Affect &
Emotional
Regulation

Attention

Memory

Language

Cognition

Academic
Achievement

Motor
Skills

Brain
Structure

Bower & Elliot, 2016

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DIAGNOSIS

Adaptive
Functioning

Executive
Functioning

Affect &
Emotional
Regulation

Language

Motor
Skills

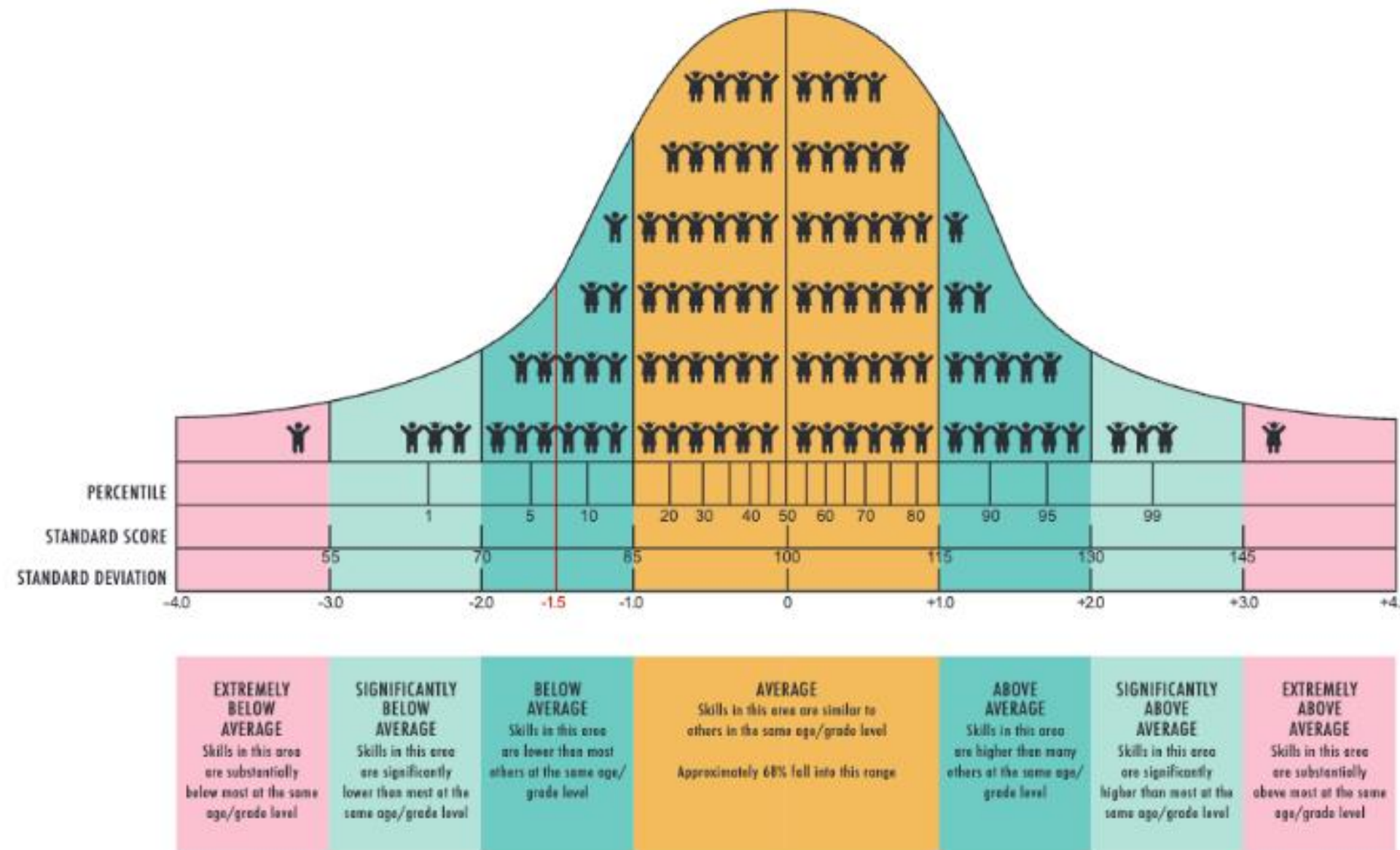
Memory

Academic
Achievement

Attention

Cognition

Brain
Structure



Severe impairment in at least 3/10 brain related domains



DIAGNOSIS

Adaptive
Functioning

Executive
Functioning

Affect &
Emotional
Regulation

Language

Motor
Skills

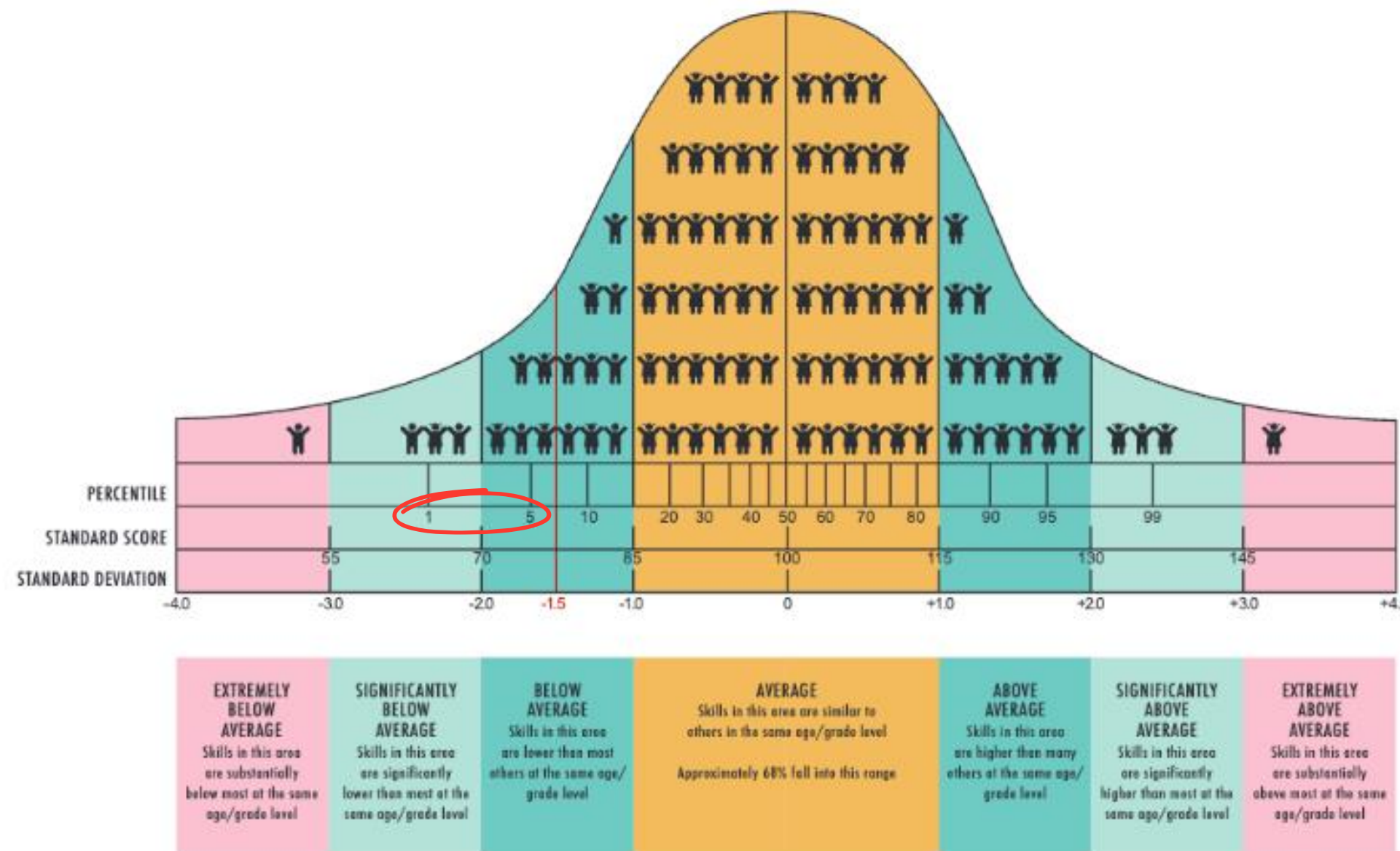
Memory

Academic
Achievement

Attention

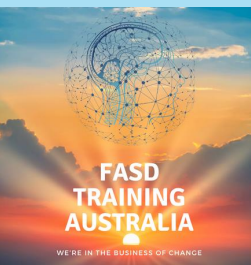
Cognition

Brain
Structure



Severe impairment in at least 3/10 brain related domains

Brain Domains



Brain Domain	Description	Example
Adaptive Functioning	Everyday skills of life	Social Skills, practical skills e.g., self-care, safety, conceptual skills e.g., functional reading and writing, concepts of time, money etc
Executive Functioning	Organisation and control centre of our brain	Includes impulse control, cognitive flexibility, the ability to link cause and effect, inhibition, short-term (working memory), organisation and sequencing
Emotional Regulation	Managing our mood and feelings	The ability to recognise and manage strong emotions including the capacity to calm ourselves and get ourselves going. Includes diagnoses of depression, anxiety, Intermittent explosive disorder, Oppositional Defiant Disorder, Borderline Personality Disorder
Attention	Focus and Attention	Selective attention, divided attention, switching attention, maintaining attention etc
Memory	Enables us to understand and predict what is coming next	Long-term memory - explicit memory, implicit memory , visual memory, verbal memory, memory for faces, etc

Brain Domains



Brain Domain	Description	Example
Language	A vehicle for expression and communication	The ability to communicate using spoken language, the ability to understand and comprehend language
Cognition	IQ plus more	IQ, reasoning and problem-solving skills, processing speed - how quickly and well we can take in information and use it
Academic Achievement	Numeracy and literacy Skills	Academic skills in reading, writing and maths
Motor Skills	Movement	Fine motor, gross motor, visuo-spatial skills
Brain Structure	Structural changes and damage	Microcephaly, brain abnormalities e.g., to corpus callosum, damage to hearing and visual pathways
Sensory	Experiences of input	Hypersensitivities, hyposensitivities, sensory seeking, sensory avoiding, proprioception, interoception

HOW CAN TEACHERS & SCHOOLS CONTRIBUTE?

Consider FASD as a possibility

Understand brain domains that can be impacted

FETAL ALCOHOL SPECTRUM DISORDERS

Confirmed Prenatal
Alcohol Exposure

Severe impairment
in at least 3/10 brain
related domains

With or without 3
facial features

120 Possible combinations

**Adaptive
Functioning**
e.g., self care,
social skills,
conceptual skills

**Executive
Functioning**
e.g., cause and
effect, impulsivity,
cognitive flexibility,
planning

**Affect &
Emotional
Regulation**
e.g., depression,
anxiety, PTSD

Attention
e.g., ADHD

Memory

Language
e.g., expressive,
receptive

Cognition
e.g., IQ,
problem-solving,
processing
speed

**Academic
Achievement**

**Motor
Skills**
e.g., fine, gross,
visuo-spatial

**Brain
Structure**
e.g., seizures,
microcephaly

ADHD

**Adaptive
Functioning**
e.g., self care,
social skills,
conceptual skills

**Executive
Functioning**
e.g., cause and
effect, impulsivity,
cognitive flexibility,
planning

**Affect &
Emotional
Regulation**
e.g., depression,
anxiety, PTSD

Attention
e.g., ADHD

Memory

Language
e.g., expressive,
receptive

Cognition
e.g., IQ, problem-
solving, processing
speed

**Academic
Achievement**

**Motor
Skills**
e.g., fine, gross,
visuo-spatial

**Brain
Structure**
e.g., seizures,
microcephaly

INTELLECTUAL DISABILITY

**Adaptive
Functioning**
e.g., self care,
social skills,
conceptual skills

**Executive
Functioning**
e.g., cause and
effect, impulsivity,
cognitive flexibility,
planning

**Affect &
Emotional
Regulation**
e.g., depression,
anxiety, PTSD

Attention
e.g., ADHD

Memory

Language
e.g., expressive,
receptive

Cognition
e.g., IQ, problem-
solving, processing
speed

**Academic
Achievement**

**Motor
Skills**
e.g., fine, gross,
visuo-spatial

**Brain
Structure**
e.g., seizures,
microcephaly

AUTISM

**Adaptive
Functioning**
e.g., self care,
social skills,
conceptual skills

**Executive
Functioning**
e.g., cause and
effect, impulsivity,
cognitive flexibility,
planning

**Affect &
Emotional
Regulation**
e.g., depression,
anxiety, PTSD

Attention
e.g., ADHD

Memory

Language
e.g., expressive,
receptive

Cognition
e.g., IQ, problem-
solving, processing
speed

**Academic
Achievement**

**Motor
Skills**
e.g., fine, gross,
visuo-spatial

**Brain
Structure**
e.g., seizures,
microcephaly

+ Sensory Issues

WHEN DO PEOPLE FIRST NOTICE?

- Variable
- Signs and behavioural symptoms may be present from infancy
- Often becomes more obvious when developmental challenges increase e.g., year 3, year 7 and when peers start to accelerate in abilities, and school-based demands outstrip abilities
- When typical interventions don't provide expected results e.g., medication, parenting strategies, learning interventions

WAYS OF UNDERSTANDING

Diagnoses: Clusters of
Symptoms
VS

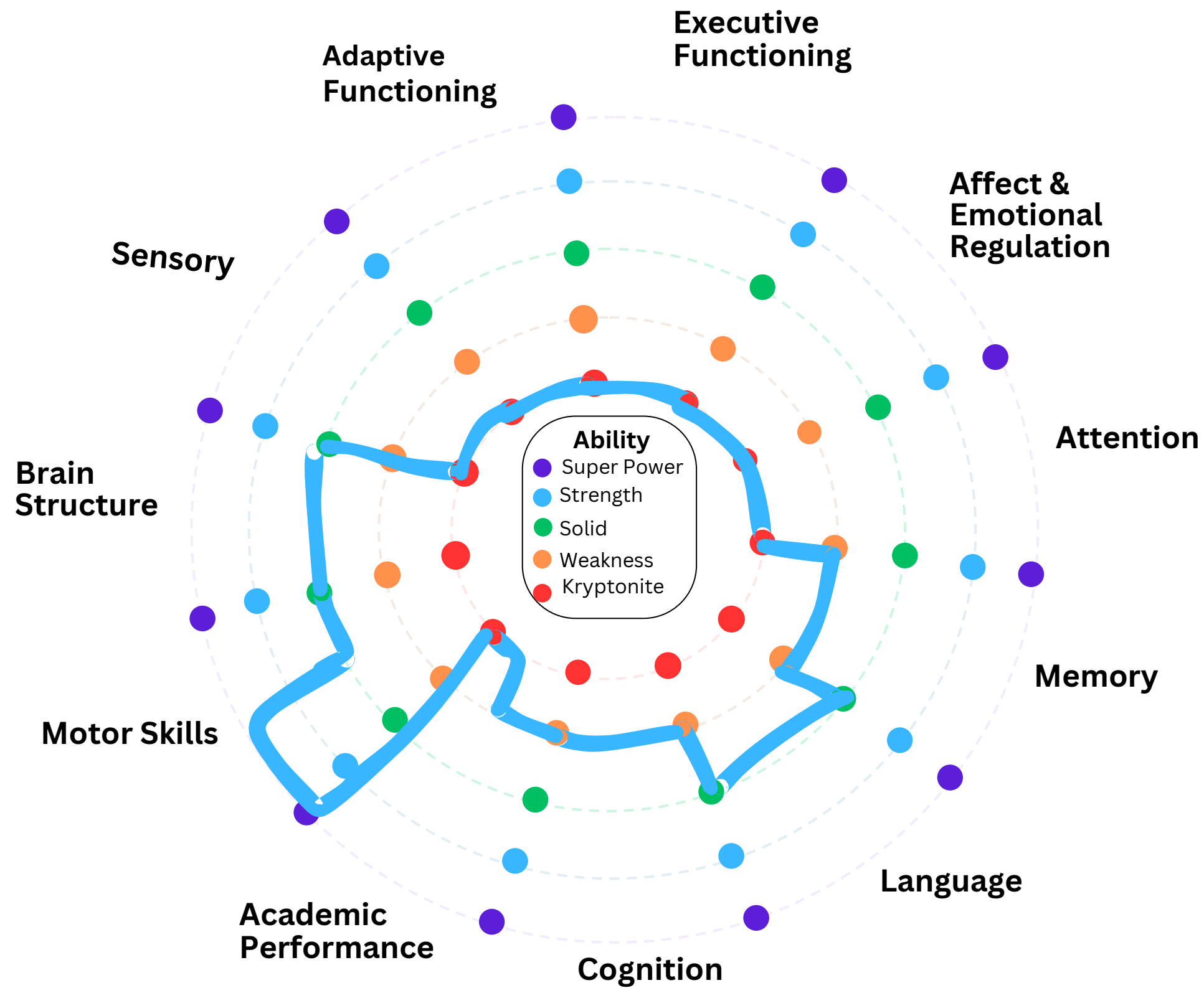
Underlying Drivers of Symptoms

- Missing skills and abilities
- Areas of impairment

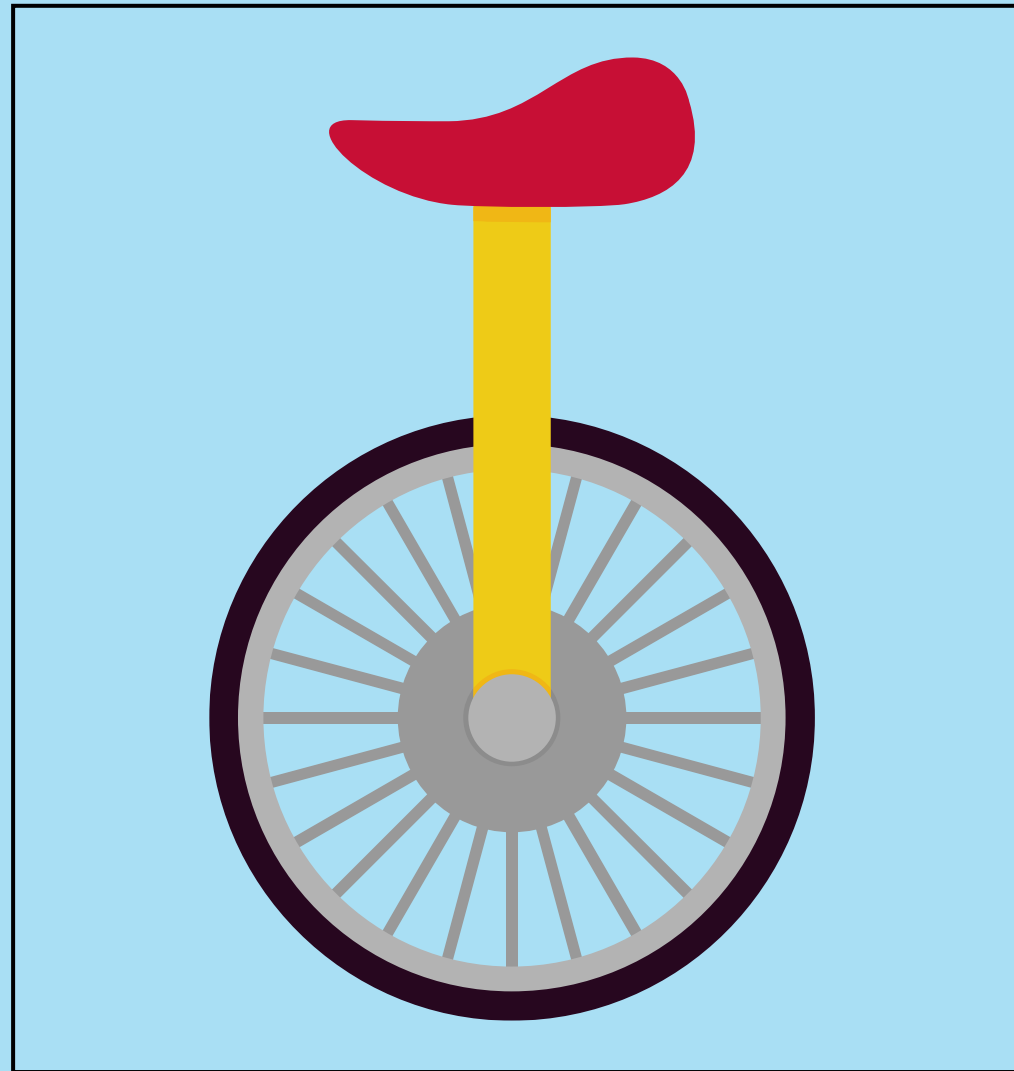
WAYS OF UNDERSTANDING: DAMIEN

SUPERIOR ABILITY	AVERAGE ABILITY	BELOW AVERAGE ABILITY	SEVEVE IMPAIRMENT
MOTOR SKILLS: GROSS, VISUO- MOTOR	LANGUAGE BRAIN STRUCTURE MOTOR SKILLS: FINE	MEMORY COGNITION ACADEMIC FUNCTIONING: READING AND WRITING	ADAPTIVE FUNCTIONING EXECUTIVE FUNCTIONING EMOTIONAL REGULATION ATTENTION SENSORY ACADEMIC FUNCTIONING: MATHS

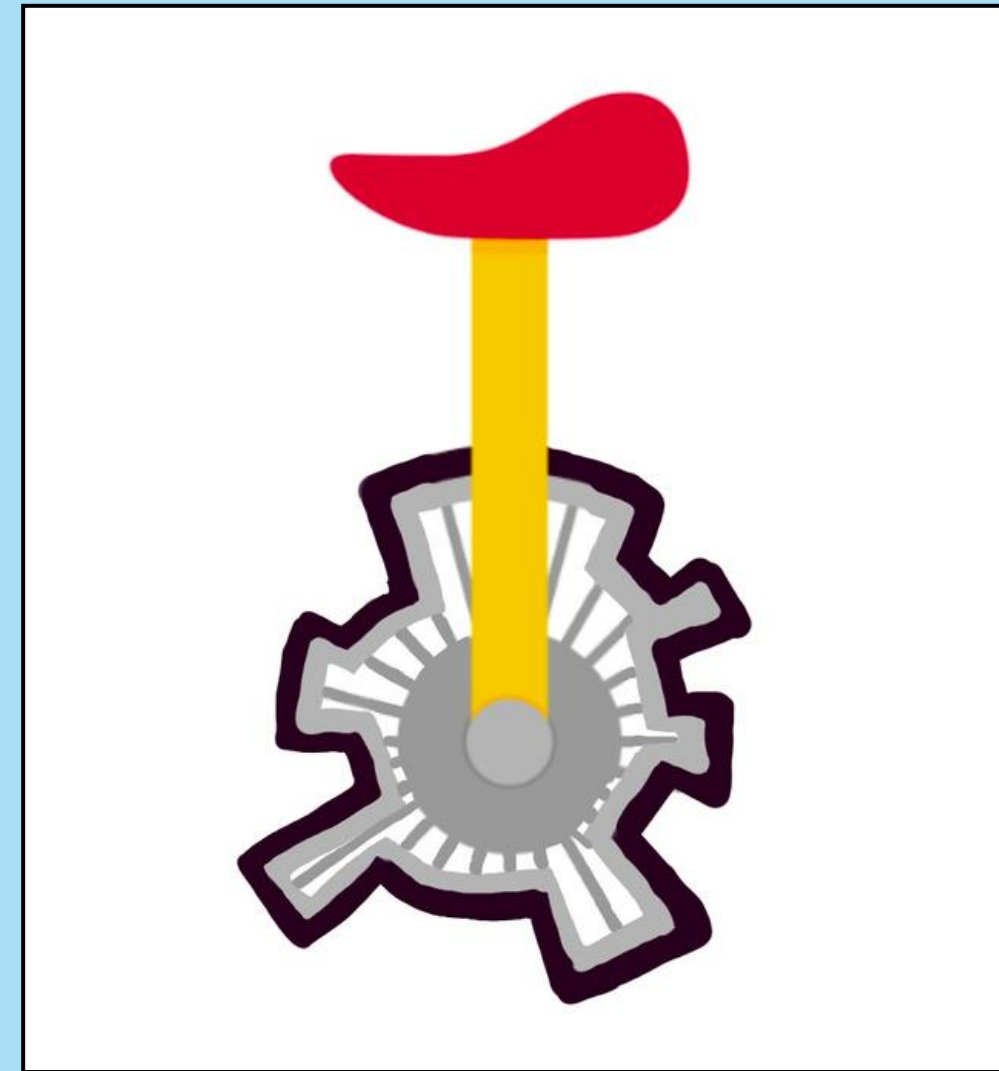
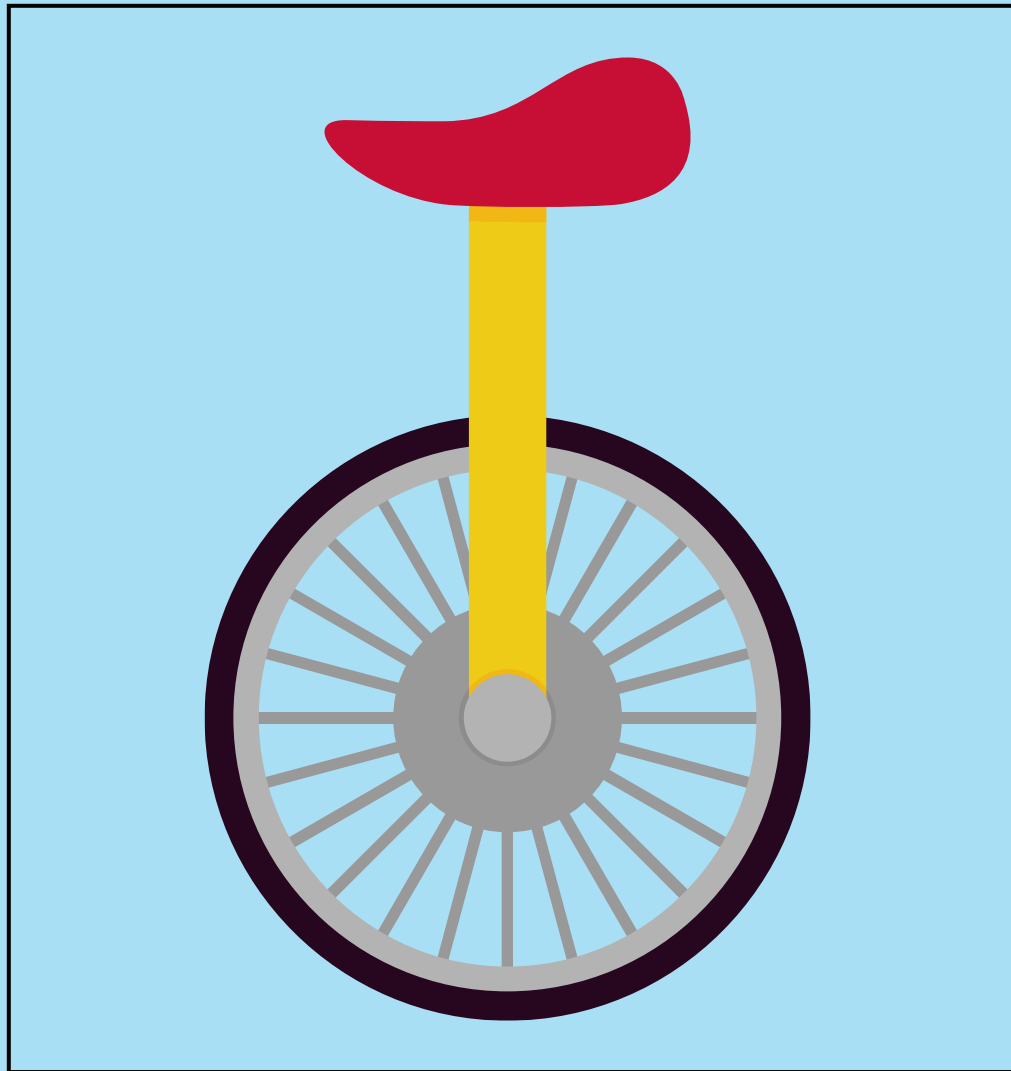
Ability Wheel Mapping Brain Domains



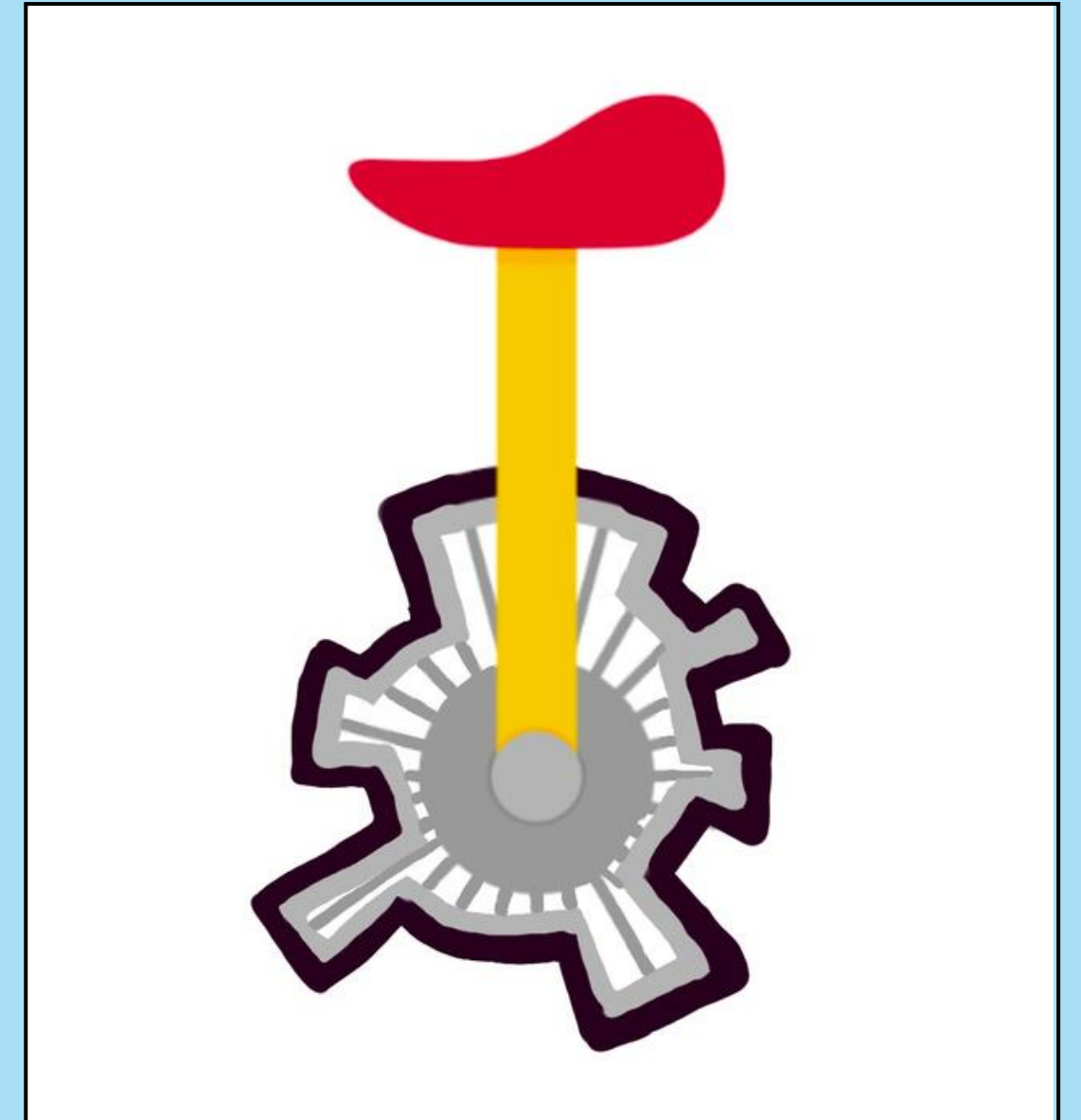
Why Use a Wheel?



Why Use a Wheel?



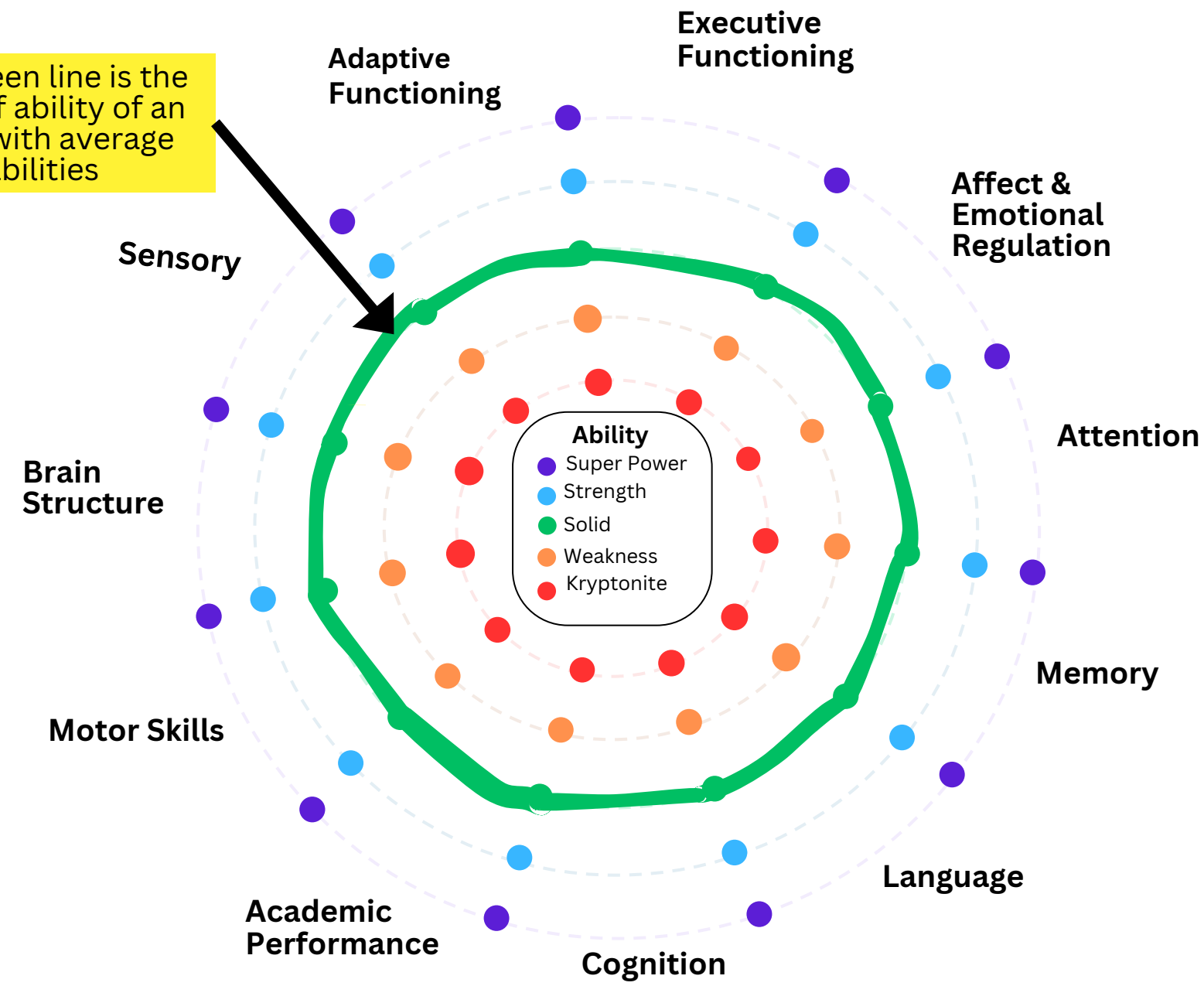
How Will Riding This Wheel Affect Damien and his School Day?



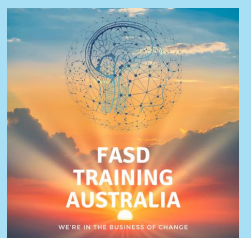
How does Damien
compare...to other kids
his age?

Ability Wheel
Mapping Brain Domains

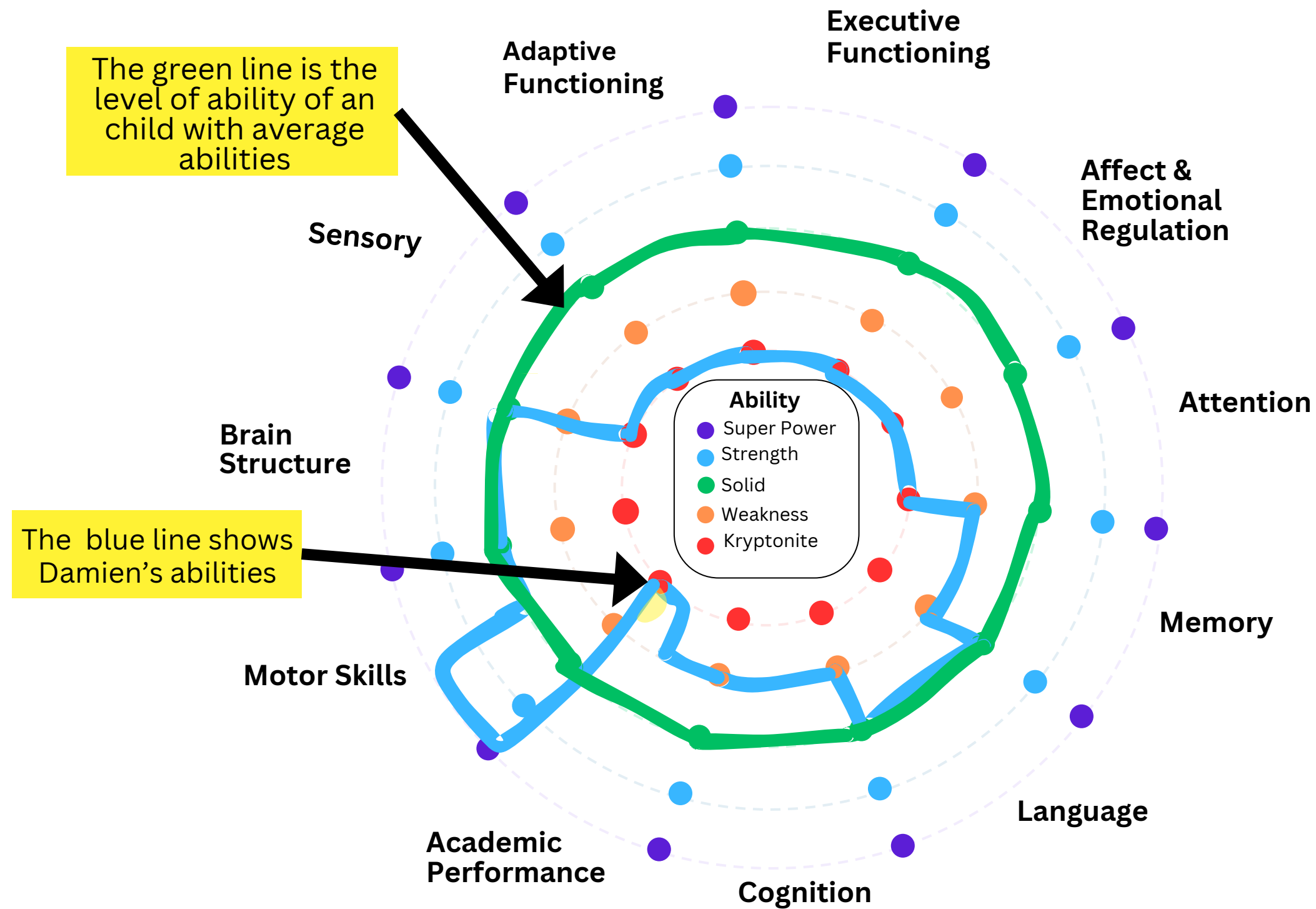
The green line is the level of ability of an child with average abilities



How does Damien compare...to other kids his age?



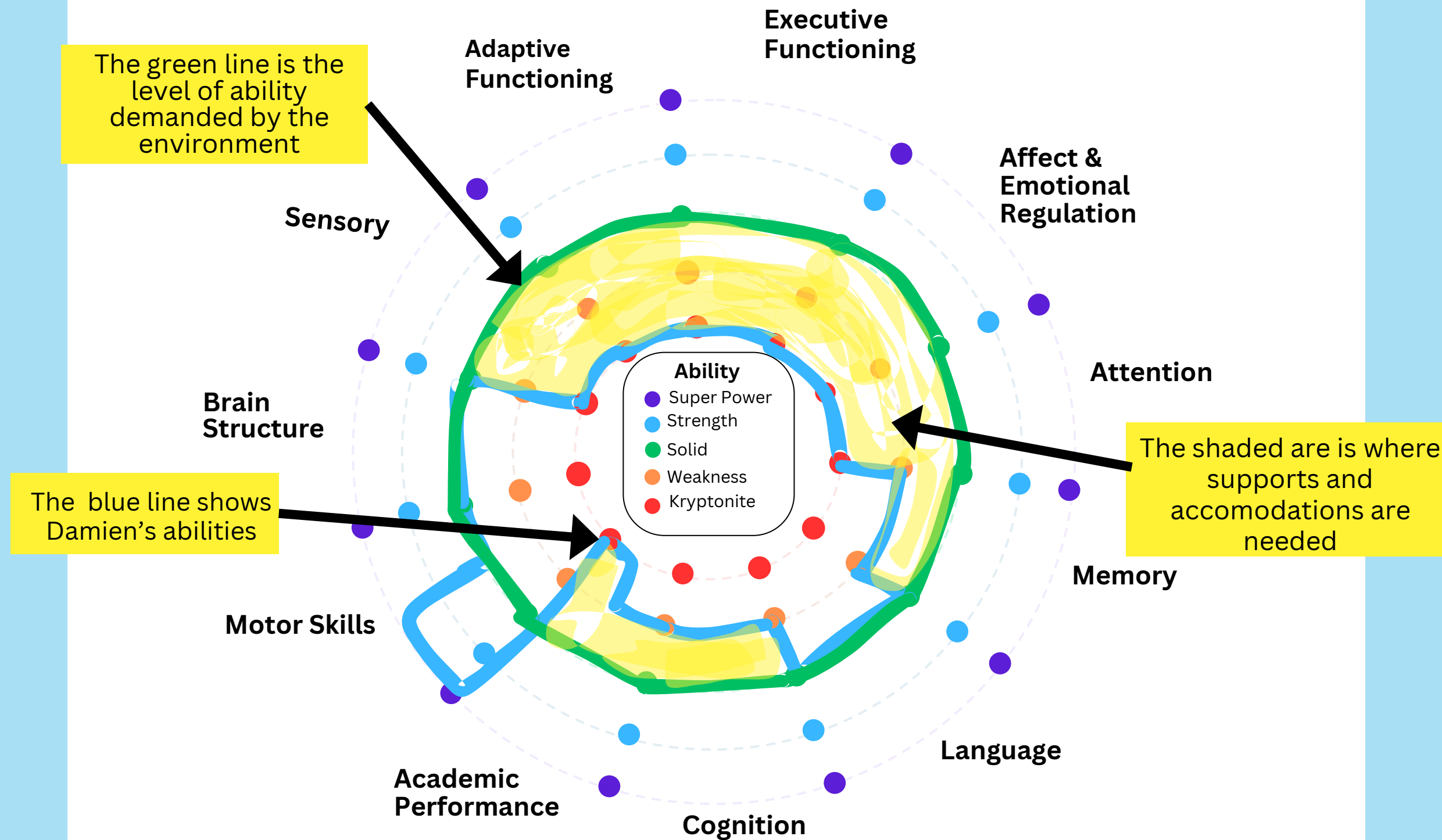
Ability Wheel Mapping Brain Domains



Where does Damien need supports
and accommodations?

Where does he need to learn skills?

Ability Wheel Mapping Brain Domains



©

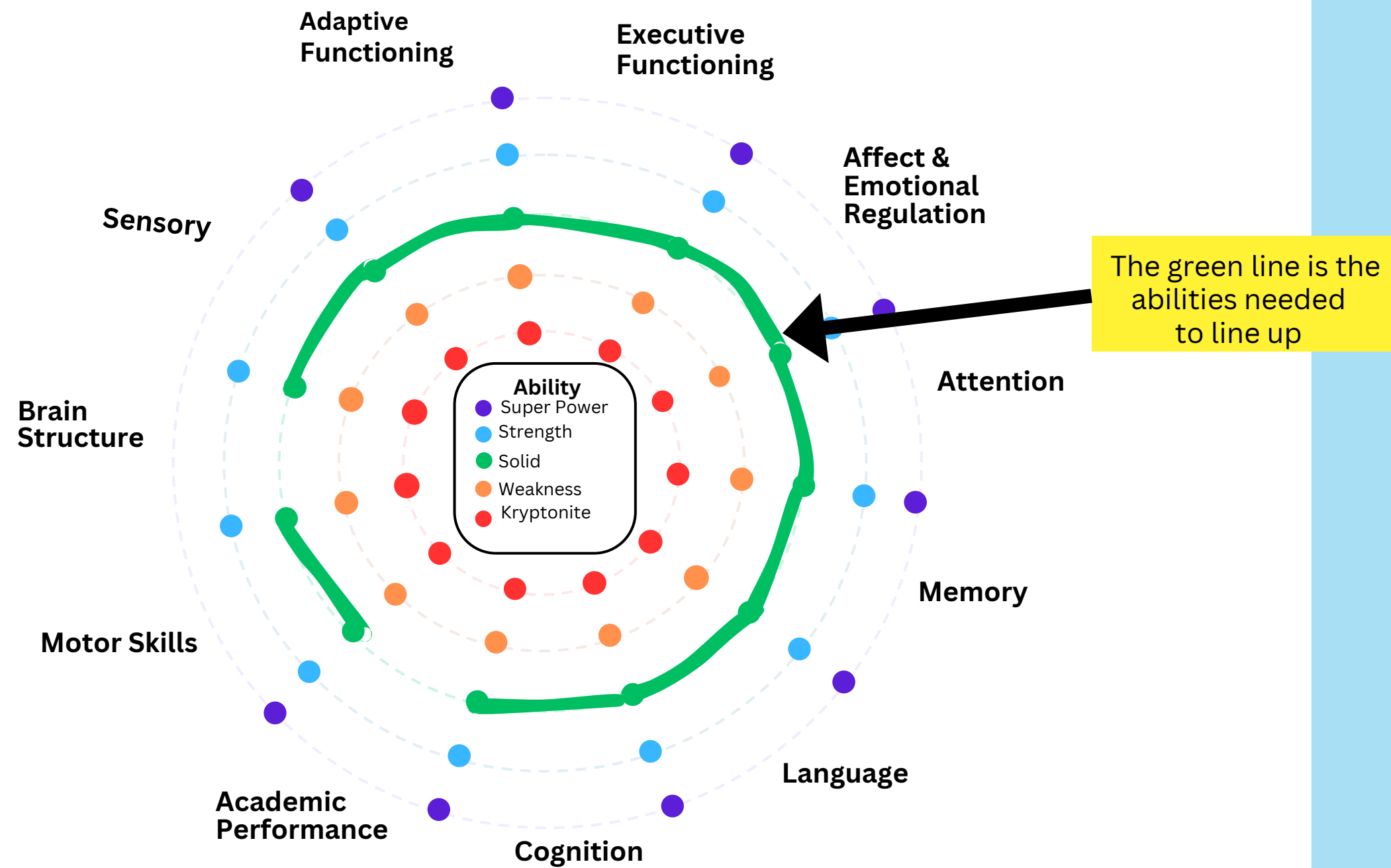
What Skills and Abilities are Needed to Succeed at School?

Lots!!!

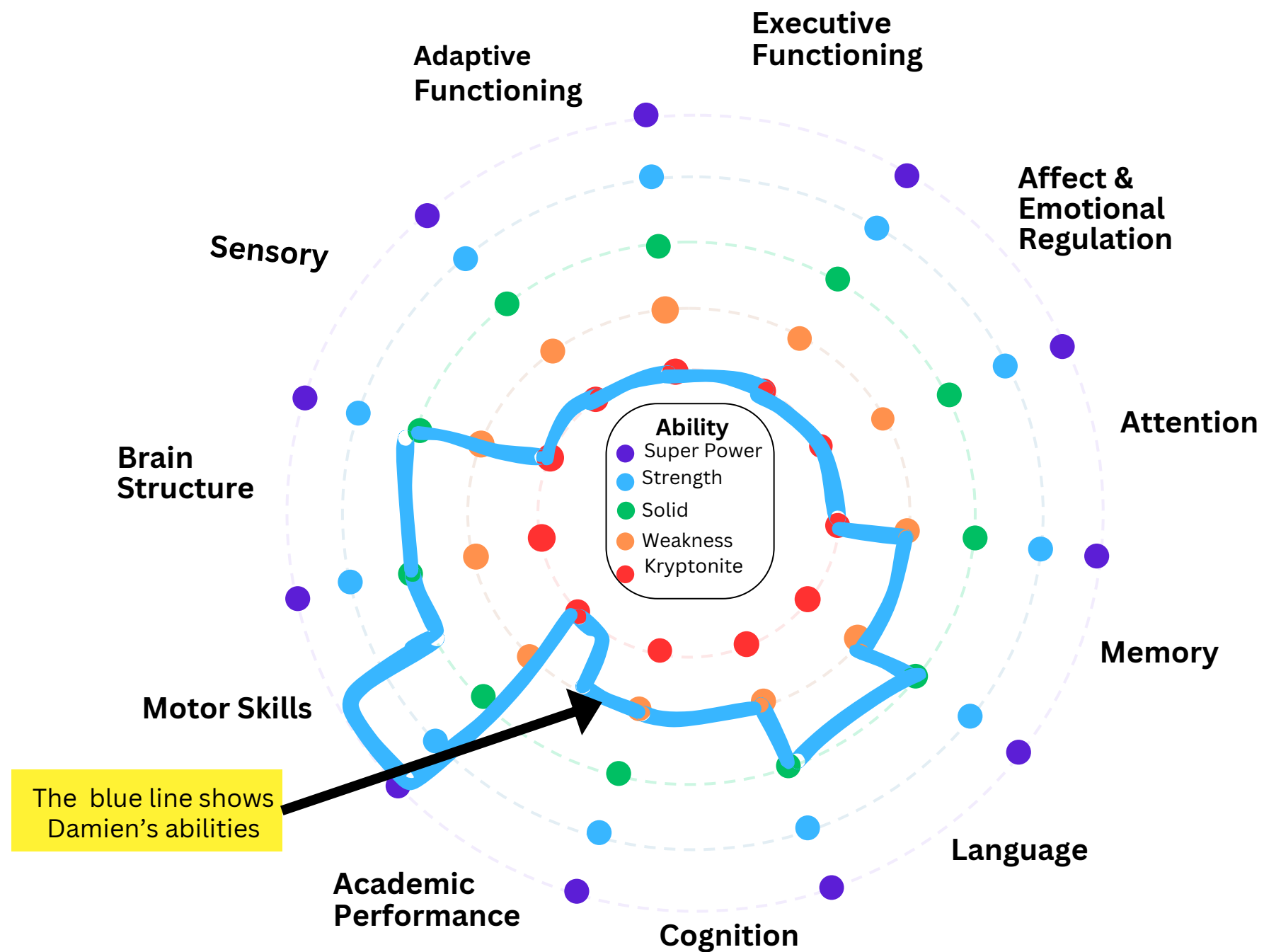
What Skills and Abilities are Needed to Succeed at School?

....Lining up

...Lining up

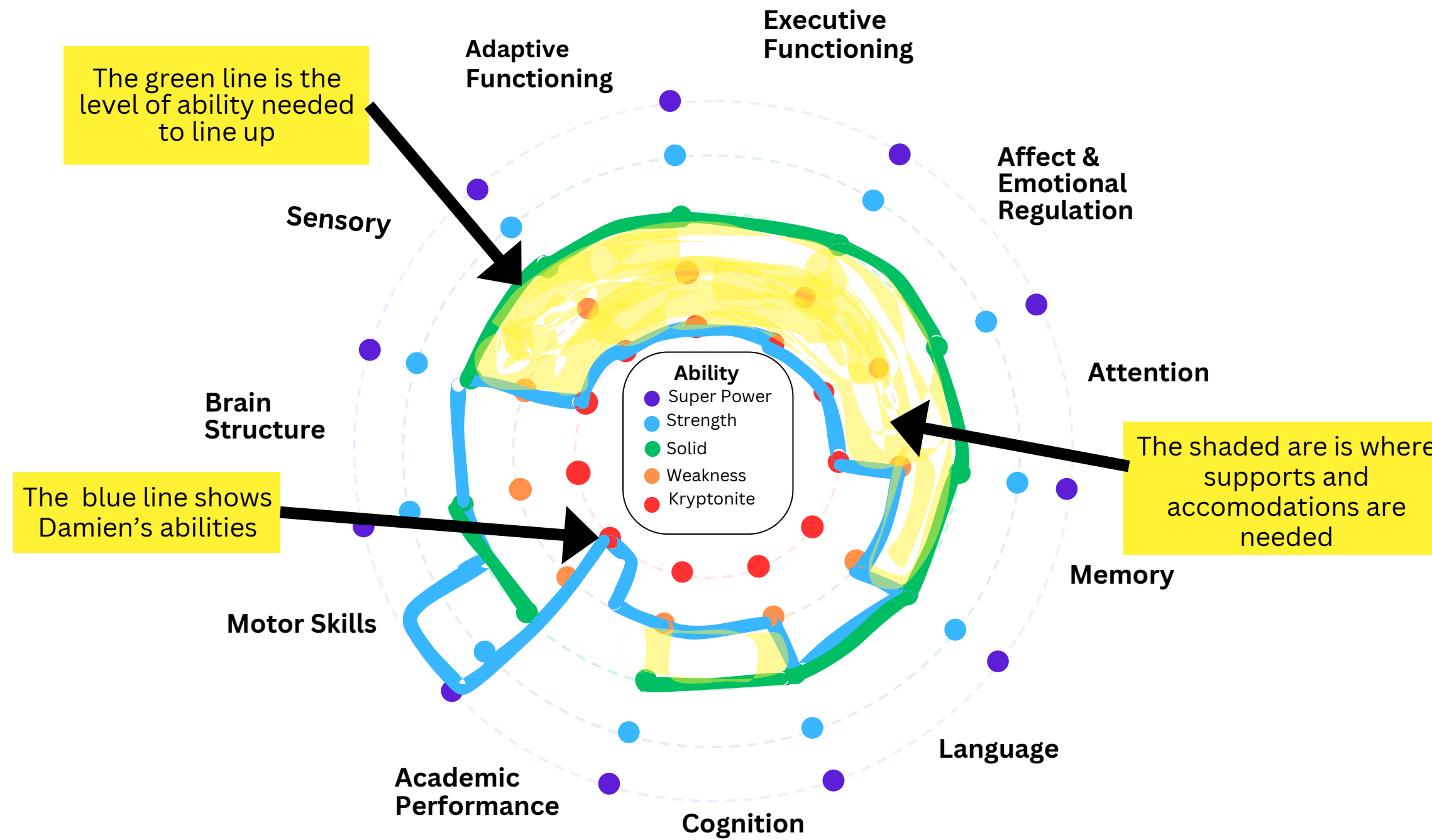


Ability Wheel Mapping Brain Domains



Does Damien Have the Skills to Succeed in ...Lining up

Ability Wheel Mapping Brain Domains

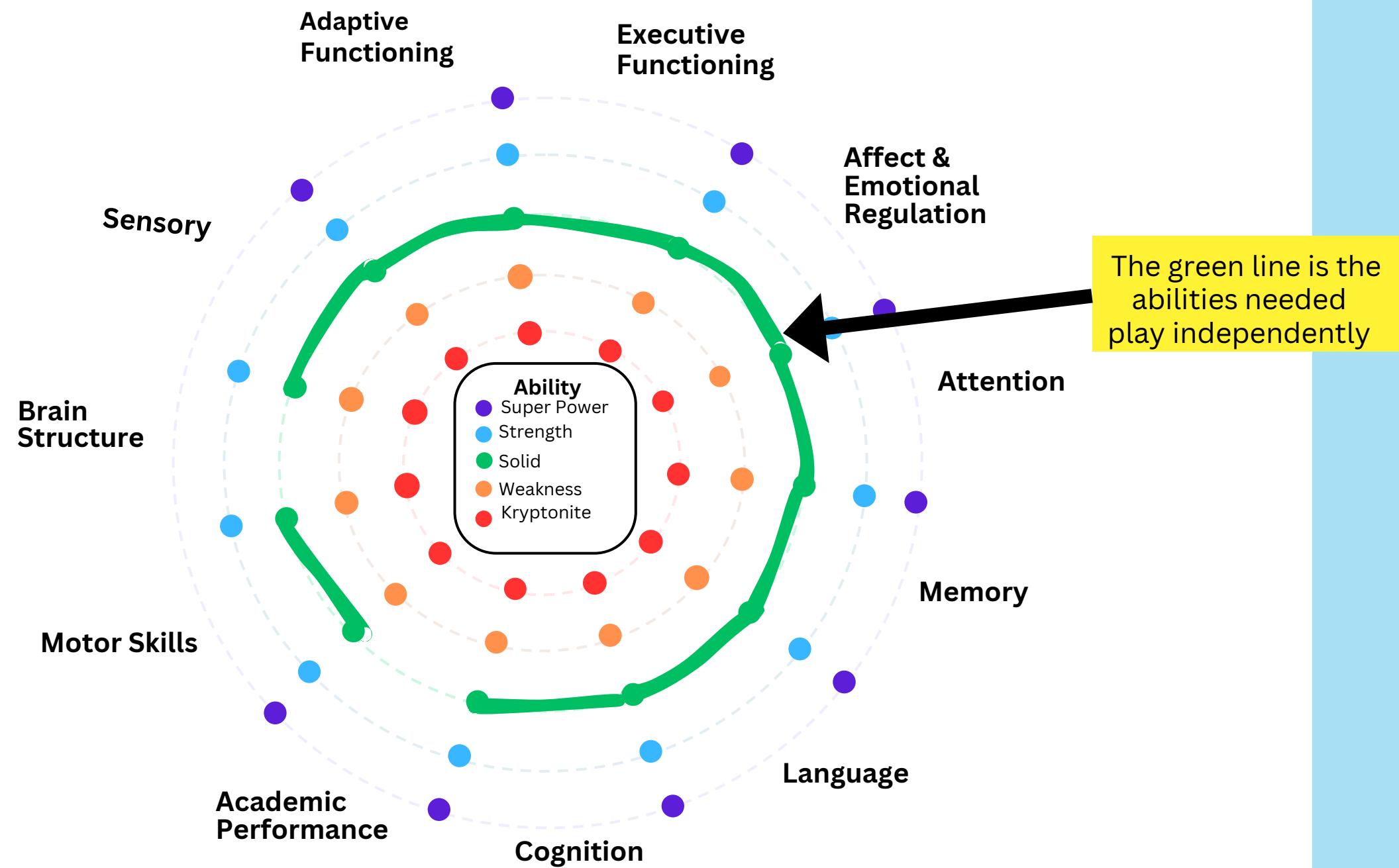


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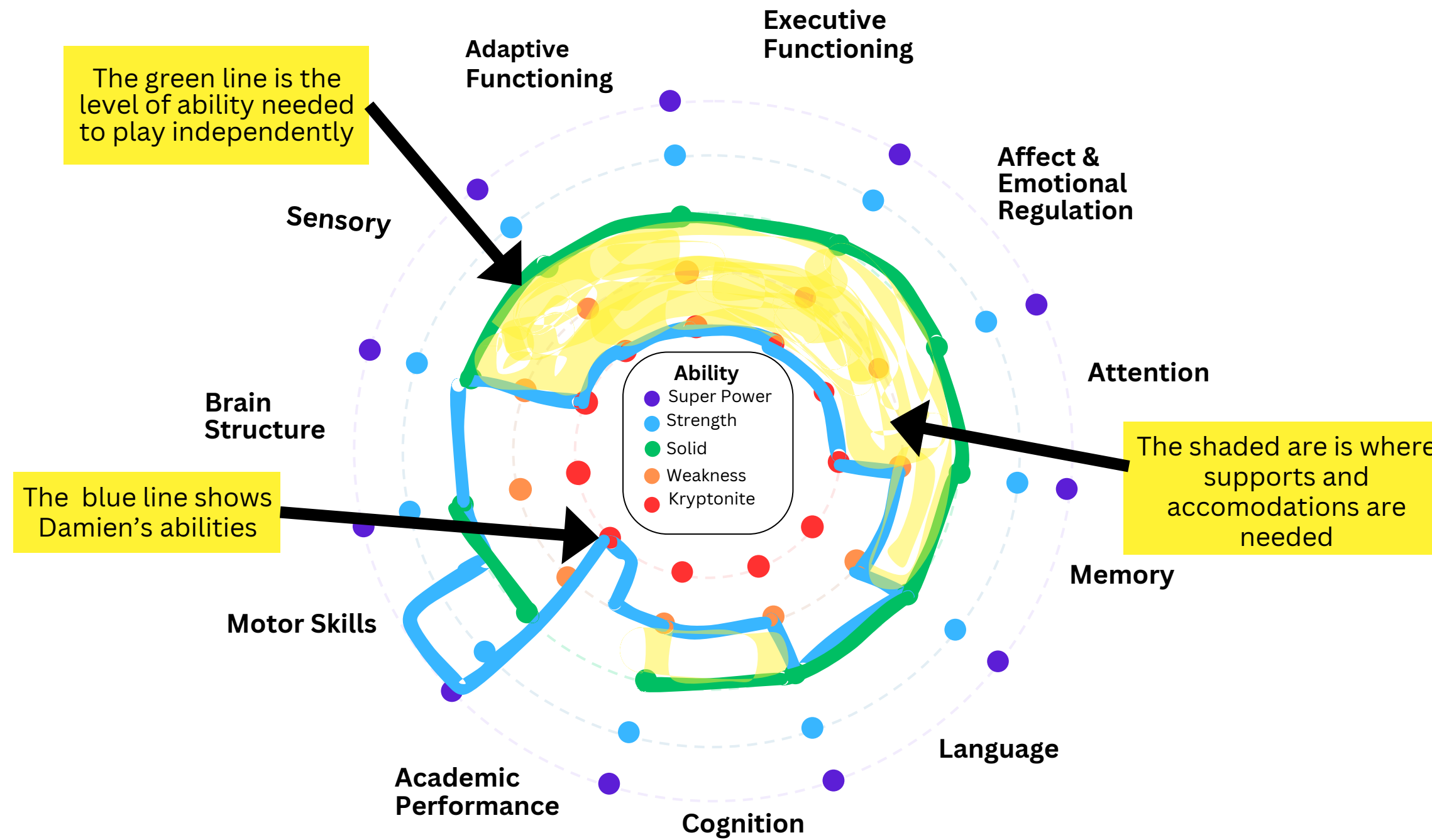
What Skills and Abilities are Needed to Succeed at School?

...Independent Lunchtime Play

...Independent Lunchtime Play



Ability Wheel Mapping Brain Domains

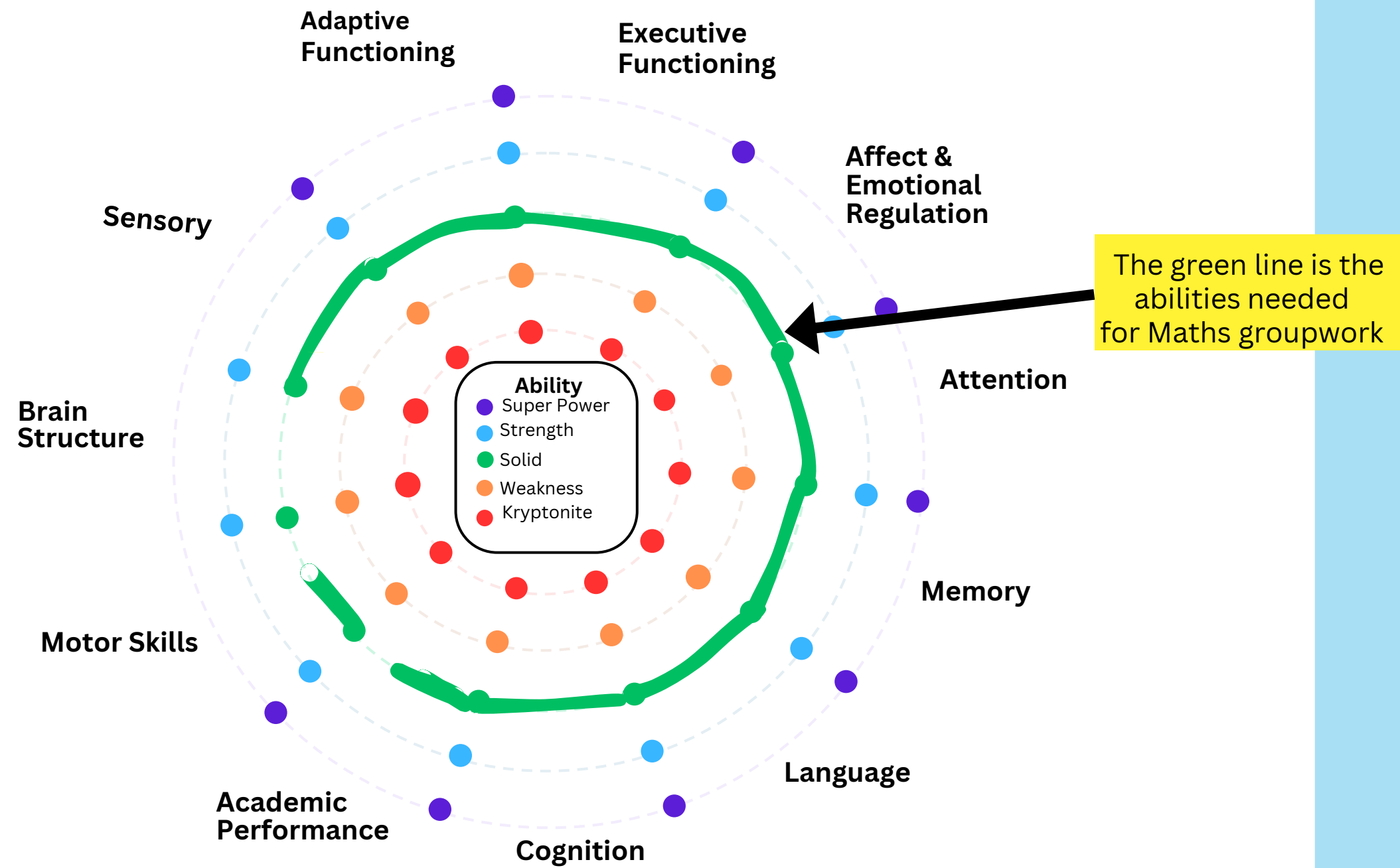


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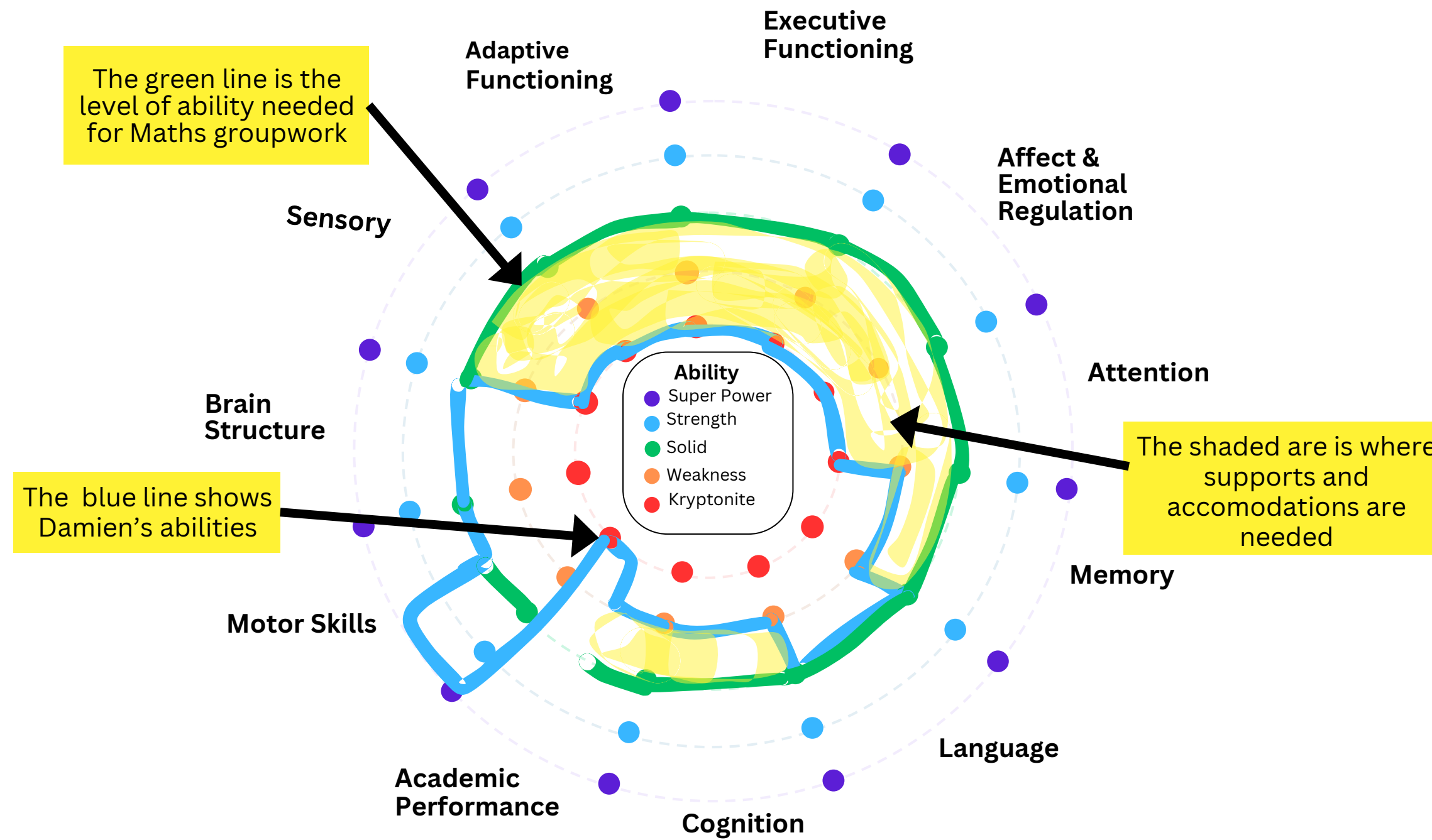
What Skills and Abilities are Needed to Succeed at School?

....Maths groupwork

...Maths Groupwork



Ability Wheel Mapping Brain Domains



©

We can Ability Map Every
Child, Task and Environment to
Predict, Explain & Justify where
Supports and Accommodations
are Needed

What Happens with Demands Outstrip a Child's Abilities?

Respond with the Skills and Abilities they
have

Attempt to solve the issue or get needs met
using the Skills and Abilities they have

Respond with the Skills and Abilities they
have

Attempt to solve the issue or get needs met
using the Skills and Abilities they have

“Fight or Flight”
Outbursts; Withdrawal; Avoidance

HOW CAN TEACHERS & SCHOOLS CONTRIBUTE?

Consider FASD as a possibility

Understand brain domains that can be impacted

Understand how brain domains can impact functioning

Are Responses Best Described as Behaviours or Symptoms?

HOW CAN TEACHERS & SCHOOLS CONTRIBUTE?

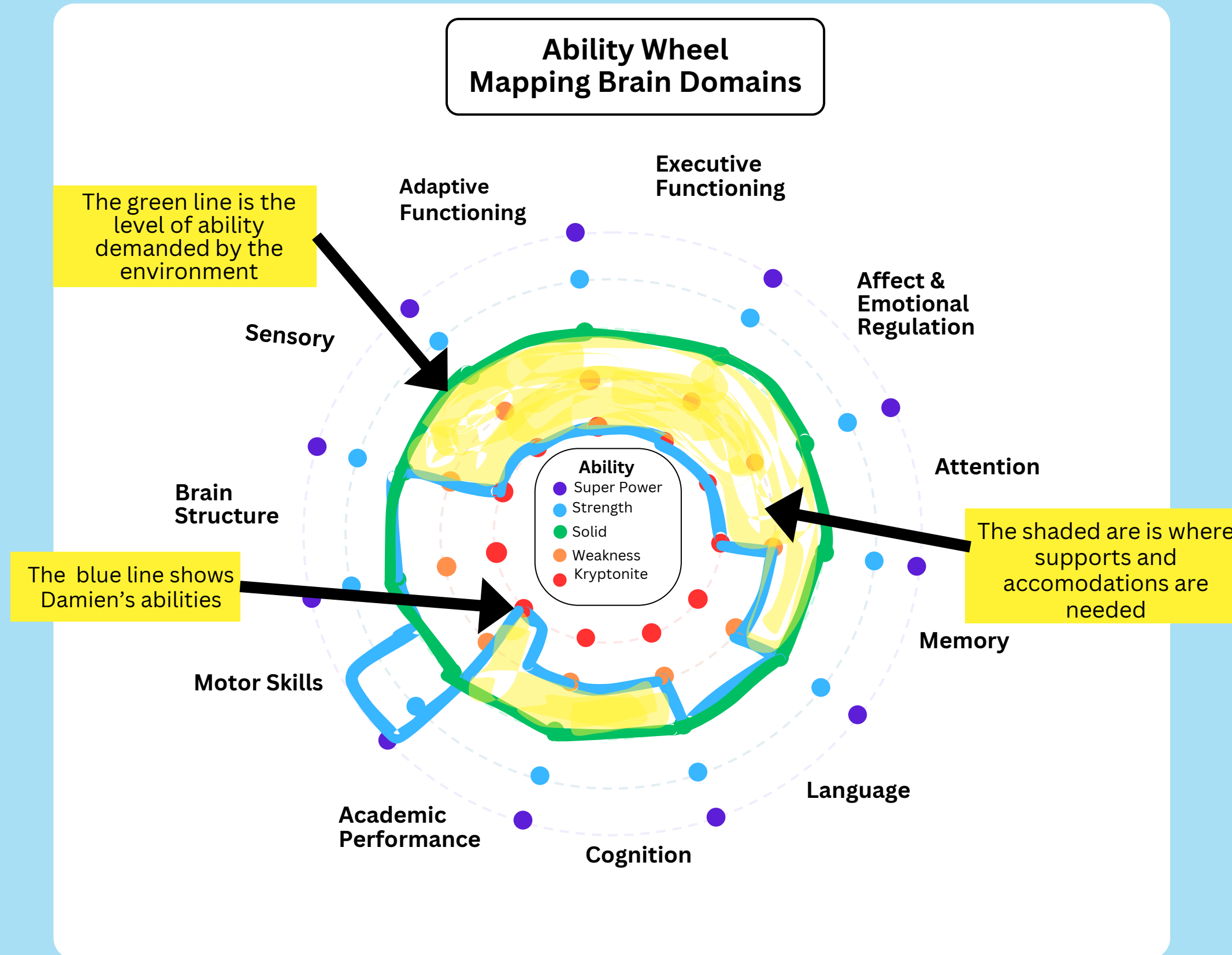
Consider FASD as a possibility

Understand brain domains that can be impacted

Understand how brain domains can impact functioning

Understand “behavioural symptoms” and why these arise

SUPPORTS & ACCOMMODATIONS



What will be most helpful for Damien?

SKILL DEVELOPMENT SUPPORTS & ACCOMMODATIONS

SUPPORTS &
ACCOMMODATIONS
(CAN BE DONE IMMEDIATELY)

SKILL DEVELOPMENT
(MAY TAKE MONTHS AND YEARS TO DEVELOP
& WILL PLATEAU)



FASD & INTERVENTION

There is no single intervention or technique possible due to the diversity of presentations and differences in underlying brain issues

- Small quantity of research
 - Focus on early to middle childhood
 - Small sample sizes
- (Flannigan et al., 2020; Reid et al., 2015)

- ALERT program (Executive Functioning)
- GoFAR (Emotional regulation)
- Specific skills (Maths, Safety, literacy, spelling)
- Social skills (e.g., Child Friendship Training)
- Parenting skills (Families Moving Forward)
- Attachment and Family Wellness (Parents under Pressure, Circles of Security, Families on Track)
- Support, Education and Advocacy (Coaching Families, training for foster carers and workers)

APPLY A BRAIN-BASED
FRAMEWORK
(WITH UNDERLYING APPROACHES
THAT DO HAVE AN
EVIDENCE BASE!)

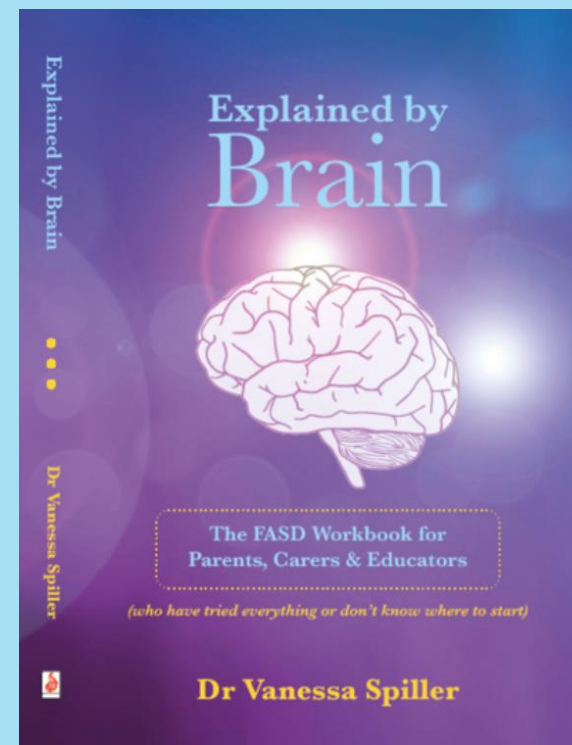
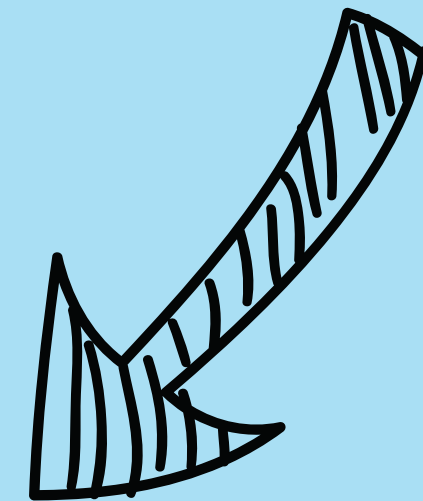
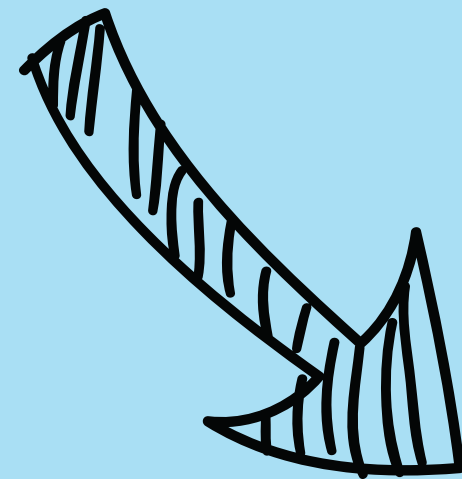
Explained By Brain

Collaborative Proactive

Neurodevelopmental
Diane Malbin

Solutions
Ross Greene

Neurosequential Model
Bruce Perry



Explained by Brain Framework

MODIFY THE ENVIRONMENT

Supervise, supervise, supervise

Adequate staffing

Low stimulation and distraction environments

Have use concrete items to practice and teach skills

Equipment and items for sensory soothing

Maximise structure, predictability and consistency

Use prompts and visual aides

Medication

LEVELS OF FUNCTIONING IS KEY TO SUPERVISION NEEDS

DOING FOR DF

At this level of functioning, people cannot perform even the most basic activities independently. They completely rely on others for survival and to meet their basic needs. Examples of “doing for” include newborn babies, the elderly, or those with severe disabilities or illnesses.



Those functioning at the “doing with” level can be successful when doing tasks alongside others, e.g., reading a book, cleaning up with a toddler, or shopping with a support worker. They require substantial, “hands-on” support to assist them in doing parts of the tasks and/or staying on task.

DOING WITH DW

COACHING C

At the “coaching” level of functioning, people can be successful when others are present to coach, guide, and/or encourage them. Hands-on assistance usually isn’t required or is minimal, and verbal prompting and reminders are enough. At the “coaching” level, people can do some skills without prompting but need reminders for other aspects or if problem-solving is required. Coaching often starts individually but may also occur in groups.



With “quasi-independence,” people can do all the skills of modern-day life with almost no assistance, e.g., self-care, shopping, cooking, holding down a job, etc. Assistance is only needed if they become significantly ill or injured and will only be required until they recover. If faced with an unfamiliar situation, people at this level can problem-solve their way out of it. They have the skills to find a solution.

QUASI- INDEPENDENT QI

HYPER INDEPENDENCE HI

If the luxuries of modern life, such as electricity, pre-prepared foods, transportation, and modern housing, are removed, those with “hyper independence” still have the skills to survive, e.g., survivalists. They will thrive in communities where people can work together to reduce the burden of doing everything manually, but they don’t need them to survive.



MODIFY EXPECTATIONS

Symptoms not behaviours

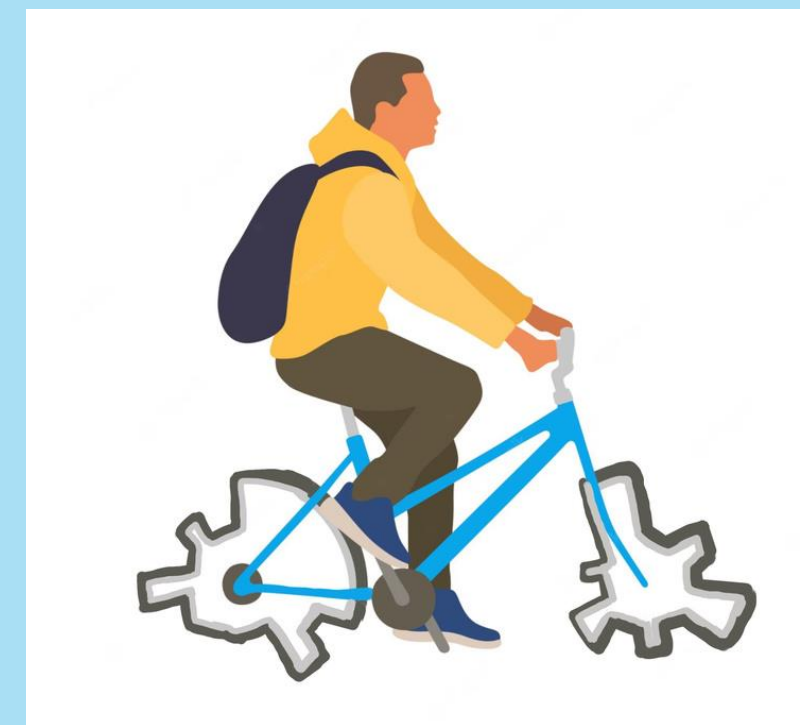
Developmental age not chronological age

Can't versus won't

Missing skills and abilities not willful defiance

Interdependence not independence

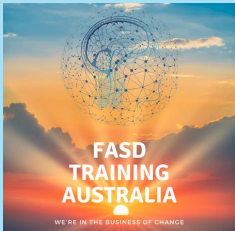
Change within limits



MODIFY EXECUTION

Strategies that fit the brain
Repeat, repeat, repeat

Praise	One step instructions
Do-over's	Humor
Time in and co-regulation	Distraction and redirection
Role Model	<u>Leave scaffolding in place</u>
Role Play	Focus on Strenghts



MODIFY EXECUTION

Avoid Strategies that rely
on missing skills & abilities

Consequences	Yelling/Loud Voice
Time-out	Ignoring
Removing favourite toy	Suspension/Expulsion
Missing out on activity	Sticker Charts



STEP AWAY FROM THAT STICKER CHART!

Why common behaviour management strategies often don't work for people with FASD
(and other neurodiverse people)!



CONDITION	BRAIN AND BODY DOMAINS											
	ADAPTIVE FUNCTION (everyday skills of life e.g., social skills, self-care, concepts of time and money etc)	EXECUTIVE FUNCTION* (e.g., impulsivity, organisation, linking cause and effect, working memory)	ATTENTION*	AFFECT (e.g., depression, anxiety, emotional regulation)	ACADEMIC (numeracy and literacy)	LANGUAGE (use and understanding)	COGNITION (e.g., IQ, processing speed, problem solving)	MEMORY	MOTOR SKILLS (fine and gross motor, visuo-motor)	BRAIN STRUCTURE	SENSORY	PHYSICAL HEALTH ISSUES (e.g., malformations and deformities, heart issues etc)
FETAL ALCOHOL SPECTRUM DISORDER	Impairment in a minimum of three brain related domains is required for diagnosis of FASD in Australia but most children with FASD have more (average = 4)											
MY CHILD WITH FASD												
BRAIN DOMAINS REQUIRED TO BENEFIT FROM THE TECHNIQUE												
STICKER CHARTS	✓	✓	✓	✓	✓	✓	✓	✓				
TIME OUT	✓	✓		✓		✓	✓	✓			✓	
REMOVAL OF FAVORITE TOY		✓	✓	✓		✓	✓	✓	✓			
MISSING OUT ON DESIRABLE ACTIVITY		✓		✓			✓	✓				
PHYSICAL DISCIPLINE	✓	✓		✓		✓	✓	✓			✓	
NATURAL CONSEQUENCES		✓	✓	✓			✓	✓				
IGNORING	✓	✓	✓	✓			✓					
SUSPENSION/ EXPULSION	✓	✓	✓	✓	✓	✓	✓	✓				
YELLING	✓	✓		✓		✓	✓				✓	
ALTERNATIVE STRATEGIES THAT DON'T RELY SO HEAVILY ON EXECUTIVE FUNCTIONING AND OTHER ABILITY AREAS INCLUDE												
Remember giving consequences for impairments and missing skills is the same as giving a child consequences for not listening when they are having a seizure!												
Strategies that DON'T rely on skills in executive functioning (i.e., the ability to link cause and effect or the ability to manage your impulses), the ability to self-regulate your emotions or other brain areas are likely to be most successful!												
These can include: Supervision, Time In, Praise, Distraction, Redirection, Humor, Role Modelling, and Role Play and remember Pick your battles wisely!												

PRIORITISE

Being pro-active

Games and activities that practice stopping and starting, transitioning, mental flexibility e.g., Simon says, Red light, green light, Beat Saber, BJJ
(Executive functioning)

Continuously teach emotional literacy
(Emotional regulation)

Focus on social skills
(Adaptive functioning)

HOW CAN TEACHERS & SCHOOLS CONTRIBUTE?

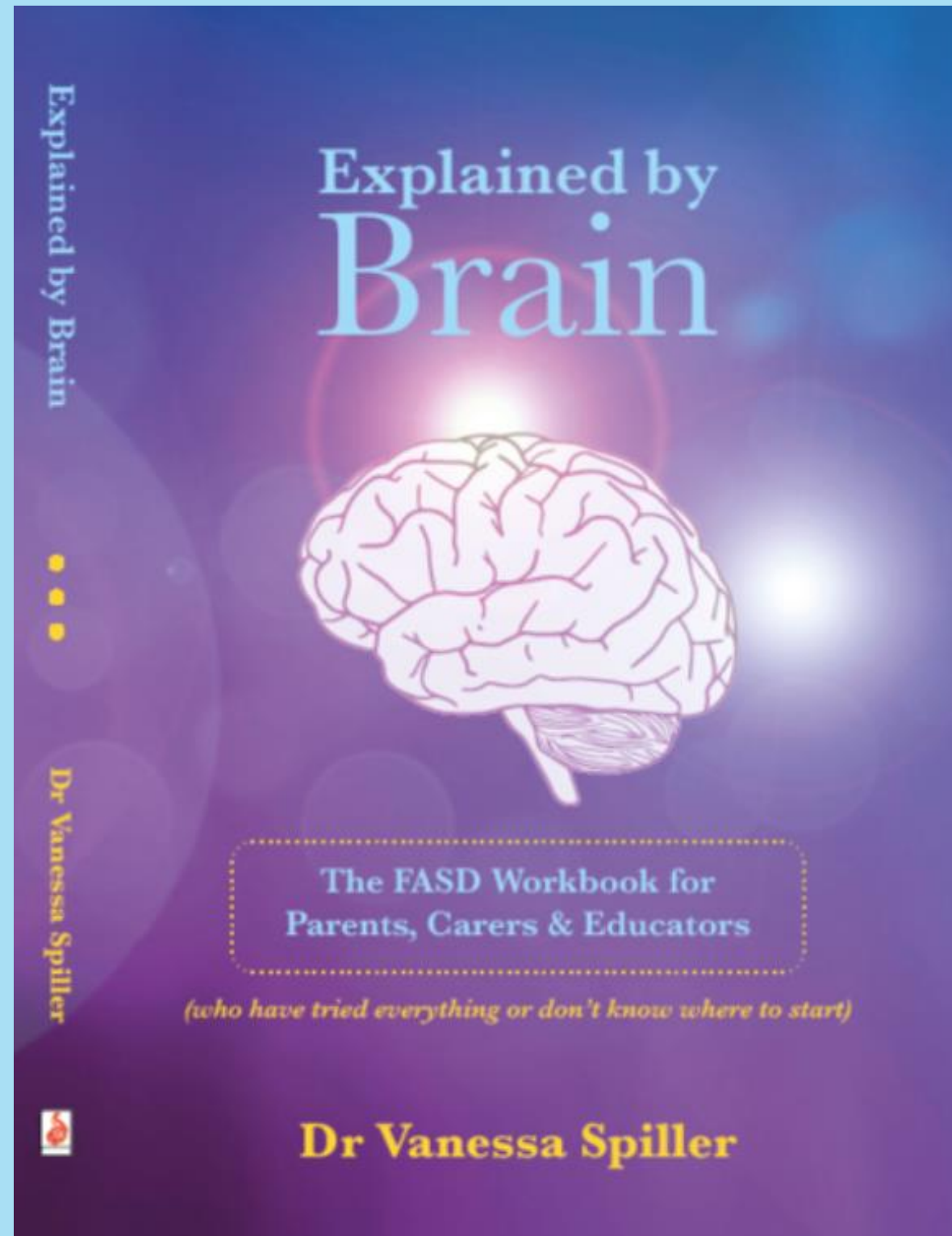
Consider FASD as a possibility

Understand brain domains that can be impacted

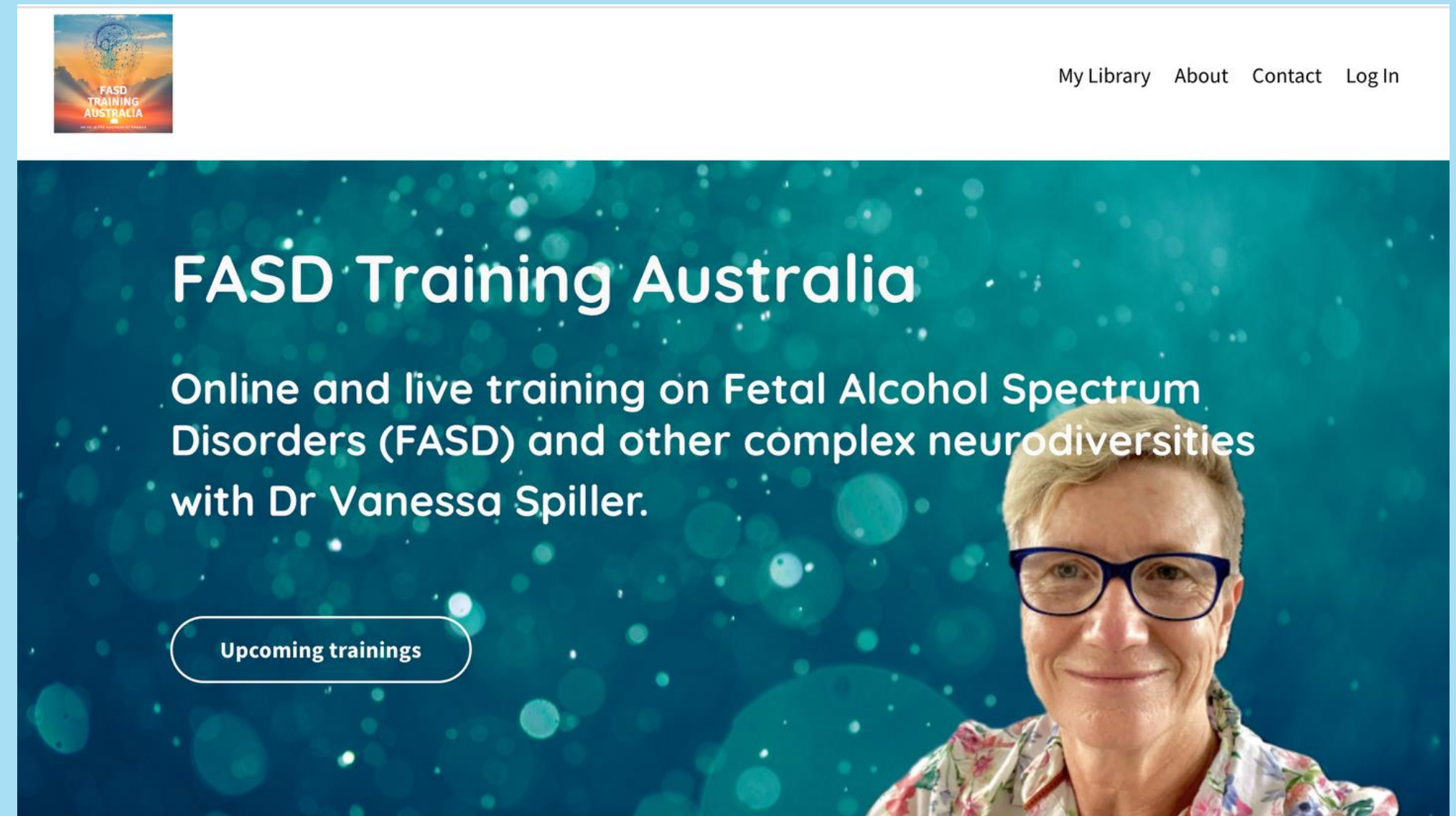
Understand how brain domains can impact functioning

Understand “behavioural symptoms” and why these arise

Collect data that will allow you to design and advocate for appropriate supports and accommodations



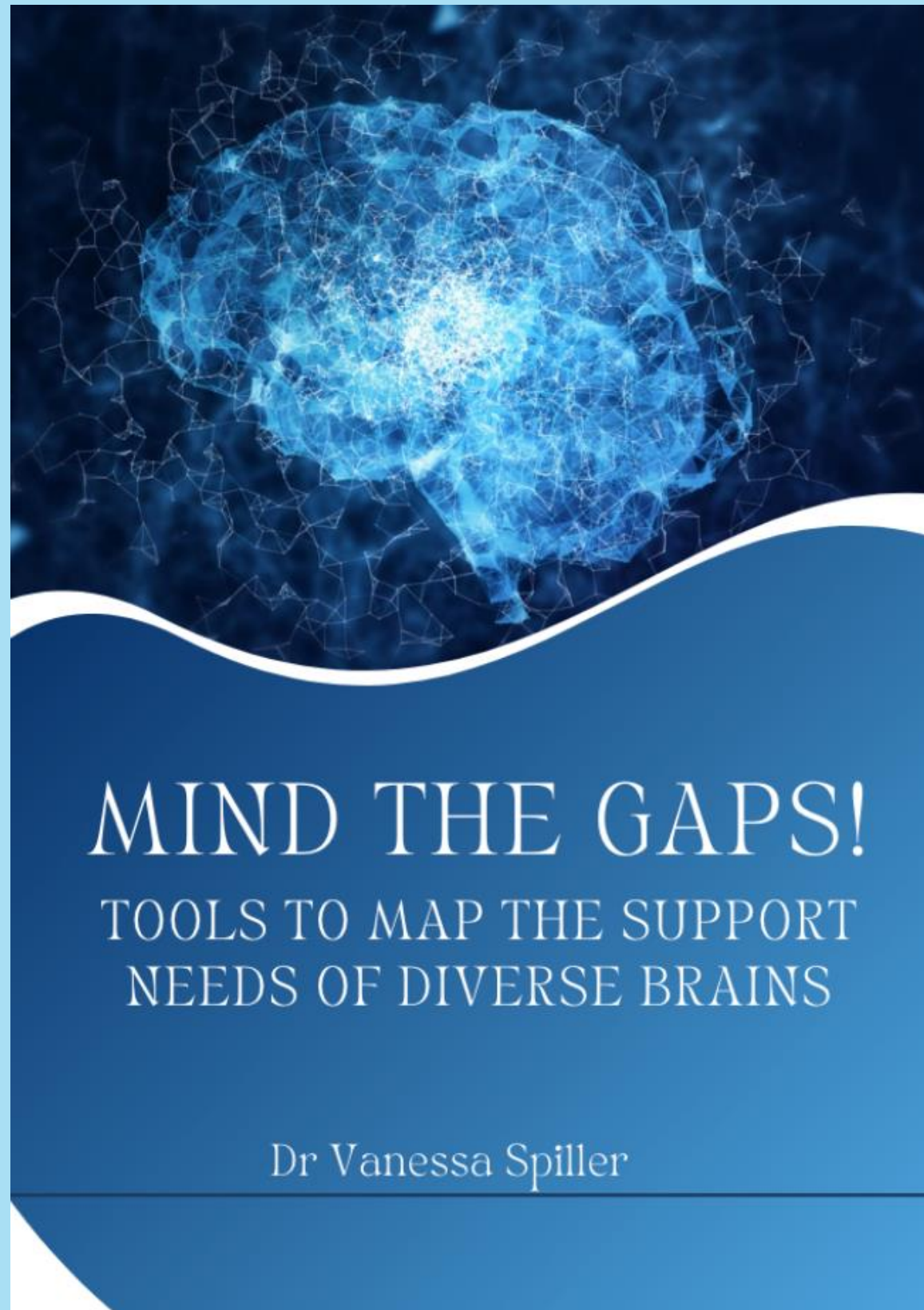
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Where you can find me:

- www.fasdtrainingaustralia.com
- (www.jumpstartpsychology.com)
- JumpStartPsychology 1 on youtube
- vanessa@jumpstartpsychology.com





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Online and live training on Fetal Alcohol Spectrum Disorders (FASD) and other complex neurodiversities with Dr Vanessa Spiller.

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SUPPORTING STUDENTS WITH FETAL ALCOHOL SPECTRUM DISORDERS - HIDDEN DISABILITIES IN THE CLASSROOM

Dr Vanessa Spiller - 2024

FASD Training Australia/JumpStart Psychology

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Supporting Students with Fetal Alcohol Spectrum Disorders - Hidden Disabilities in the Classroom

3hrs + self-paced CPD for Teachers and other school staff

This training focuses specifically on the needs of classroom Teachers, Special Education Staff, Teacher Aides and other school personnel who are supporting young people diagnosed or at risk of FASD. With a higher prevalence than Autism but much less recognition, this introductory training provides essential learning for all school staff who want to support their students with this hidden disability.

Videos, readings and quizzes will be used to enhance your learning experience.

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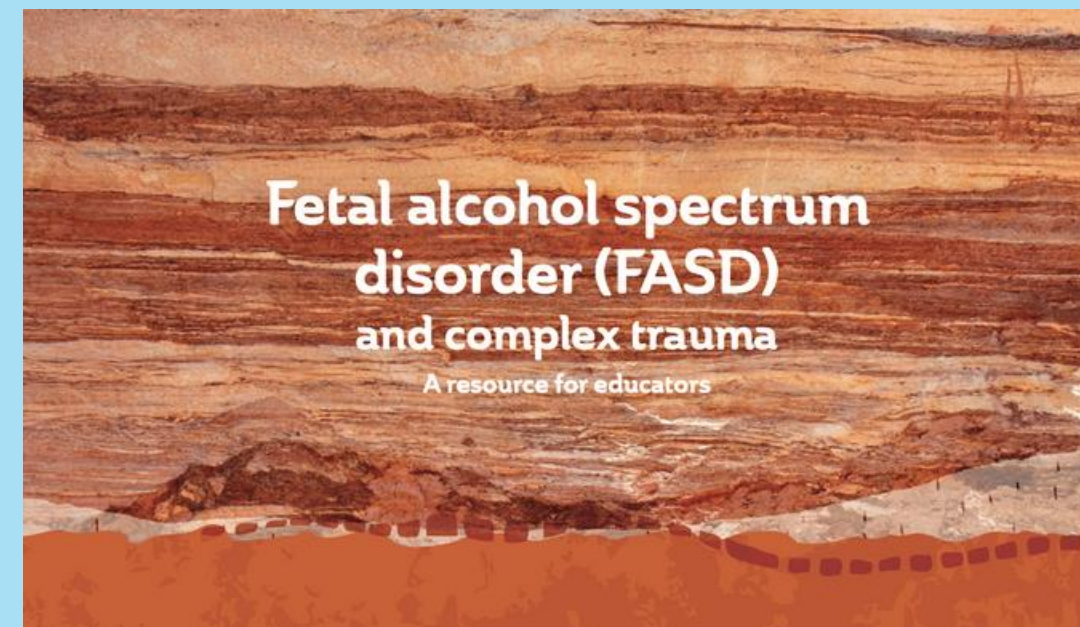
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Marula Strategy



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