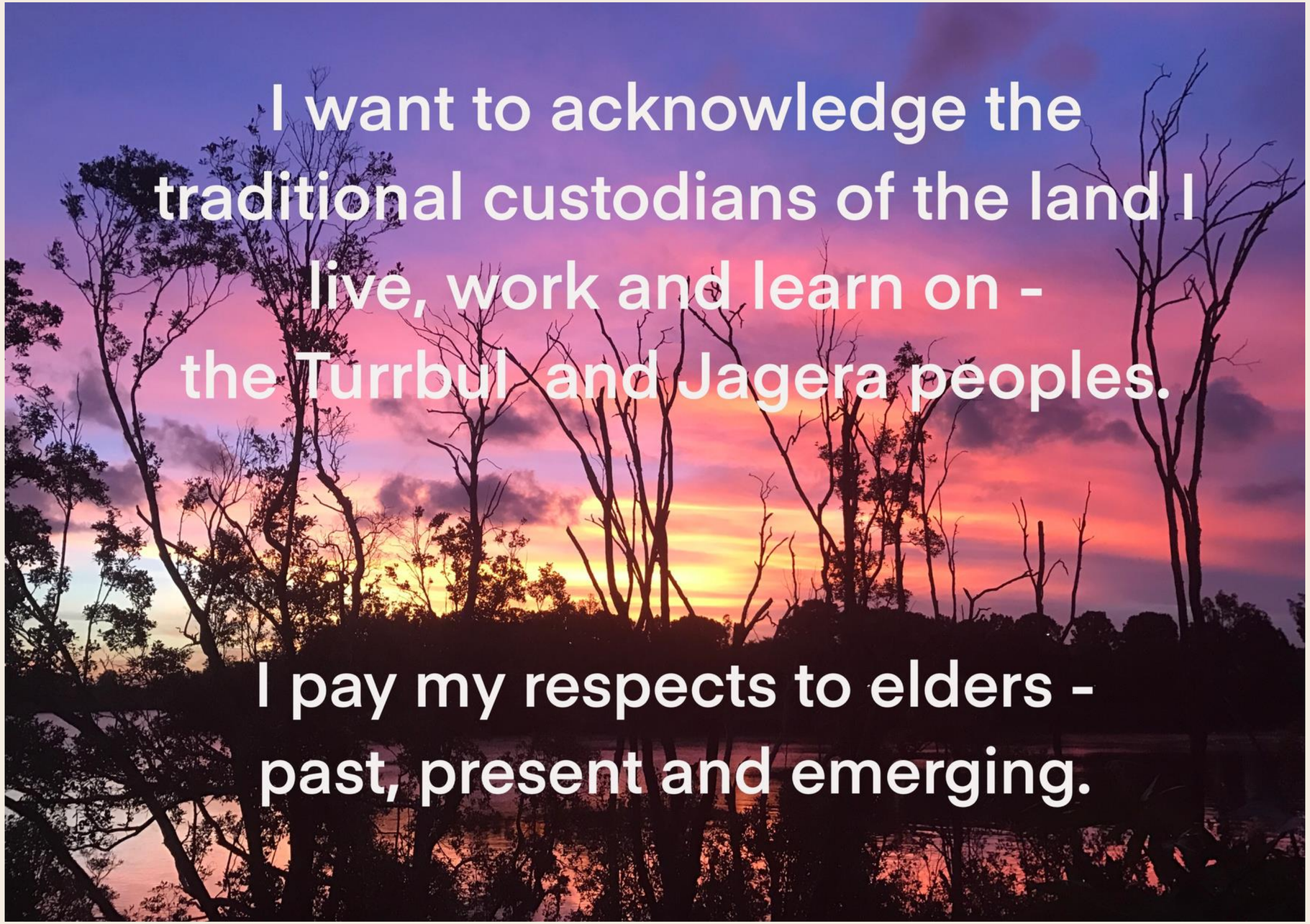
"The Pointy End of the Stick": Using ability mapping to support learners with complex needs

SEPLACON TEACHERS DAY
SYDNEY 2024

Dr Vanessa Spiller

Dr Vanessa Spiller www.fasdtrainingaustralia.com www.jumpstartpsychology.com info@jumpstartpsychology.com



WHAT IS INCLUDED IN COMPLEX NEURODIVERSITY?

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 IS INCLUDED IN COMPLEX NEURODIVERSITY?

Fetal Alcohol Spectrum Disorder (FASD)

Autism

ADHD

Intellectual Disability

Brain Injury

cPTSD

ODD

Conduct Disorder

Neurodevelopmental Disorders associated with prenatal substance use

Persistent and consistent functional impairment without a diagnosis

WHY FOCUS ON COMPLEX NEURODIVERSITY?

Biggest challenge to inclusive and equitable education

Poorest outcomes and understanding

Challenge to individual educators

Expensive $ and time (not addressed or addressed)

Interventions are complex and varied

Flow on effect to other learners

FIRST CHALLENGE:

UNDERSTANDING COMPLEXITY

WAYS OF UNDERSTANDING

Diagnosis: Clusters of Symptoms
VS
Brain-based Skills and Abilities

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

FETAL ALCOHOL SPECTRUM DISORDER

Confirmed Prenatal Alcohol Exposure

Severe impairment in at least 3/10 brain related domains

With or without 3 facial features

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

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

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120 Possible combinations

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Academic Achievement

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Brain Structure
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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

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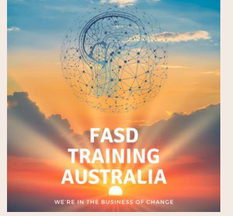
Brain Domains



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

Bowers & Elliot, 2016

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 abnoralities e.g., to corpus callosum, damage to hearing and visual pathways
Sensory	Experiences of input	Hypersensitivities, hyposensitivities, sensory seeking, sensory avoiding, proprioception, interoception

Bowers & Elliot, 2016

BRAIN-BASED WAYS OF UNDERSTANDING

Clusters of Symptoms

VS

Underlying Drivers of Symptoms

- Missing skills and abilities
- Areas of impairment

BRAIN-BASED WAYS OF UNDERSTANDING

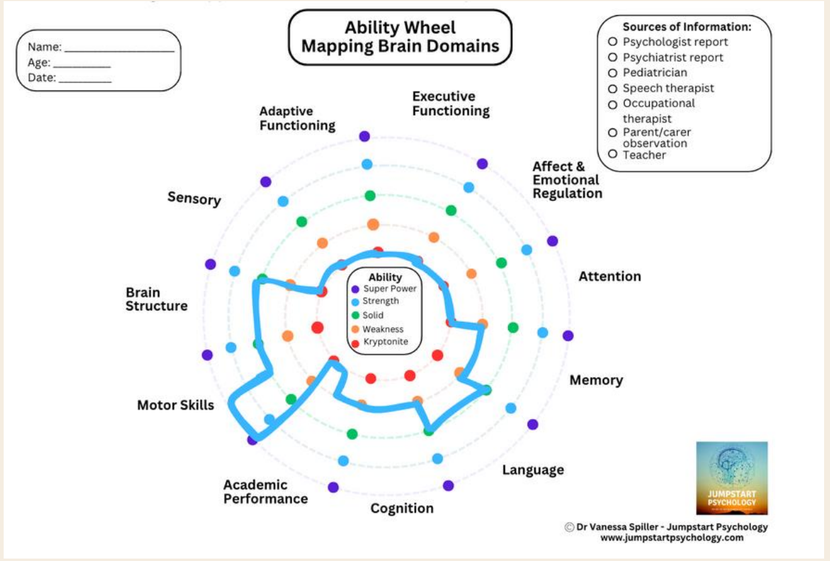
Framework that is applicable to everyone regardless of diagnosis

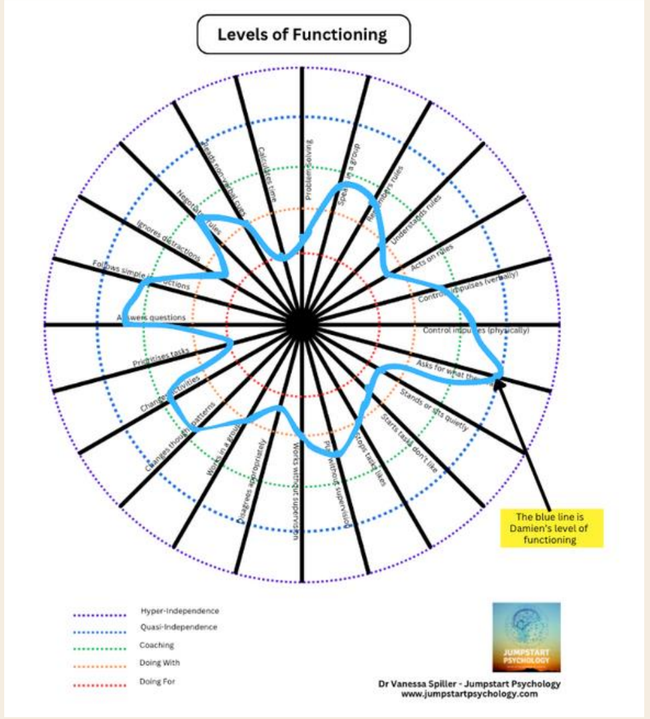
Provides information vital to effective interventions regardless of diagnosis

SECOND CHALLENGE:

INFORMATION OVERLOAD

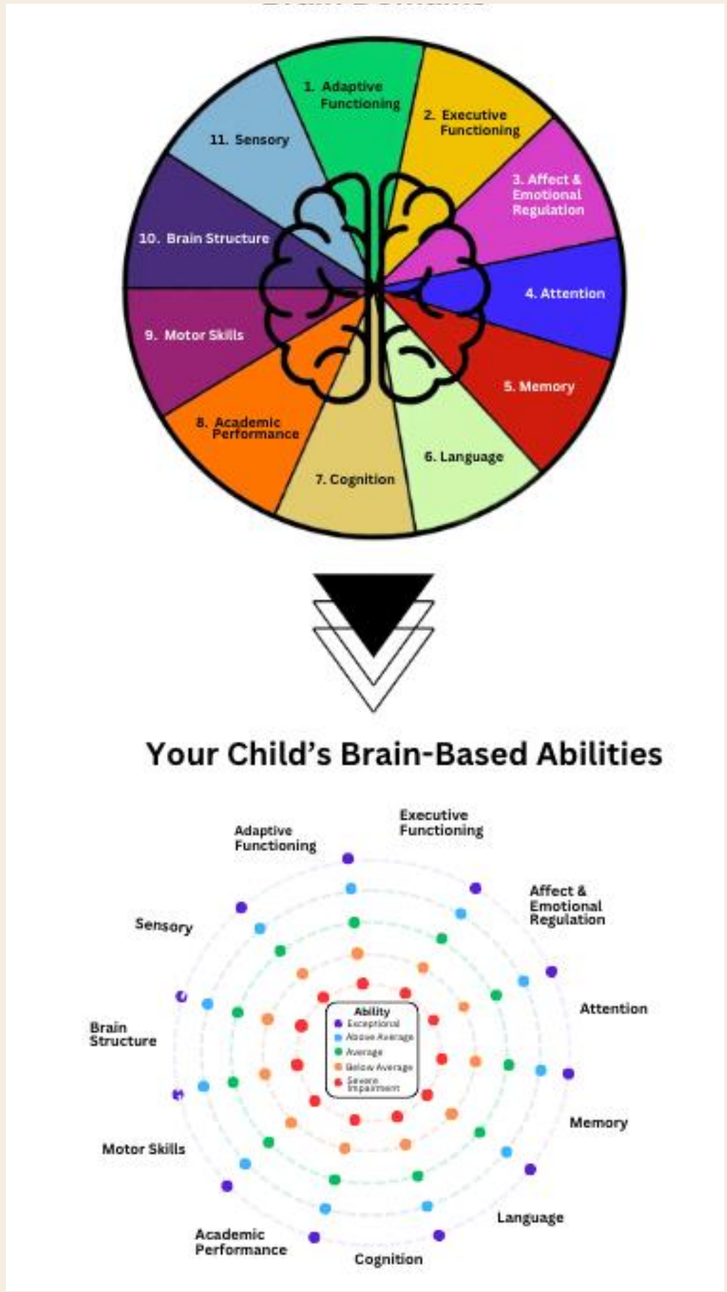
Mapping Ability and Levels of Functioning





Diagnosis doesn't tell us enough

Use existing assessment results to map a child's abilities in the 11 brain domains



How Ability Mapping and Mapping Levels of Functioning Helps

Kids with neurodiversity are really complex

- Simplifies the complexity while remaining accurate
- Simplifies understanding of other complex kids and allows for the use of common language and frameworks
- Easily explains why our kids need the support strategies they do and why common behaviour management strategies don't work well

Teachers don't have a lot of time

- Communicates a lot of information fast
- Uses simple visuals and analogies teachers can relate to
- We can use it for multiple purposes - IEP planning, applying for funding, understanding behavioural symptoms, appealing expulsions and suspensions
- Identifies where behavioural symptoms are predictable and why

Identifying what is most important?

- Identifies gaps between what our kids can do and what is expected of them
- Identifies areas where support and accommodations are essential
- Identifies strengths and weaknesses
- Identifies areas where skill development is needed

Ability Mapping...

Adaptive Functioning
ABAS
GAC - 2nd percentile
Social Skills - 3rd percentile
Practical Skills - 1st percentile
Conceptual - 1st percentile

Executive Functioning
Barkley's Deficits in Executive Functioning
Overall Executive Functioning- 98th percentile
Time management - 93rd percentile
Organisation - 98th percentile
Impulsive control - 98th percentile
Self-motivation - 96th percentile

Affect and Emotional Regulation
RCADS
Major Depressive disorder- 97 percentile (clinically significant)
Separation Anxiety Disorder - 83.6 percentile

Formally assessed and diagnosed with depression by a clinical psychologist

Barkley's Deficits in Executive Functioning
Emotional Regulation - 98th percentile

Academic Achievement
WIAT
Reading Fluency Composite - Low average
Writing Fluency Composite - Low average
Maths Fluency Composite - Very Low

Cognition
Full Scale IQ - 15th percentile
Verbal comprehension - 10th percentile
Visual spatial skills - 23rd percentile
Fluid Reasoning (logic) - 20th percentile
Working memory - 11th percentile
Processing speed - 7th percentile

Brain Structure
No history of seizures
No scans or MRI's conducted

Memory
NEPSEY-II
Memory for Names - 5th percentile (below expected)
Narrative Memory - 7th percentile (well below expected)
Memory for faces - 6th percentile (well below expected)

Language
CELF
Core Language - 30th percentile (low average)
Receptive - 45th percentile (average)
Expressive - 23rd percentile (low average)

NEPSY-II
Language (comprehension of instructions) - 25th percentile (average)

Attention
Connor's Teacher and Parent Reports
Inattention - 97th percentile
Hyperactivity/Impulsivity - 99th percentile

Barkley Deficits in Executive Functioning Scale
ADHD score = >99th percentile

Formally assessed and diagnosed by a psychologist and psychiatrist

Motor Skills
Berry Motor Coordination Test
Motor Coordination - 98th percentile

BOT - 2
Gross Motor - 99th Percentile
Fine Motor - 45th Percentile

Sensory
Sensory Processing Profile Questionnaire

Low Registration - Much more than most people
Sensation seeking - More than most people
Sensory Sensitivity - Much more than most people
Sensation avoiding - More than most people

Ability Wheel
Mapping Brain Domains

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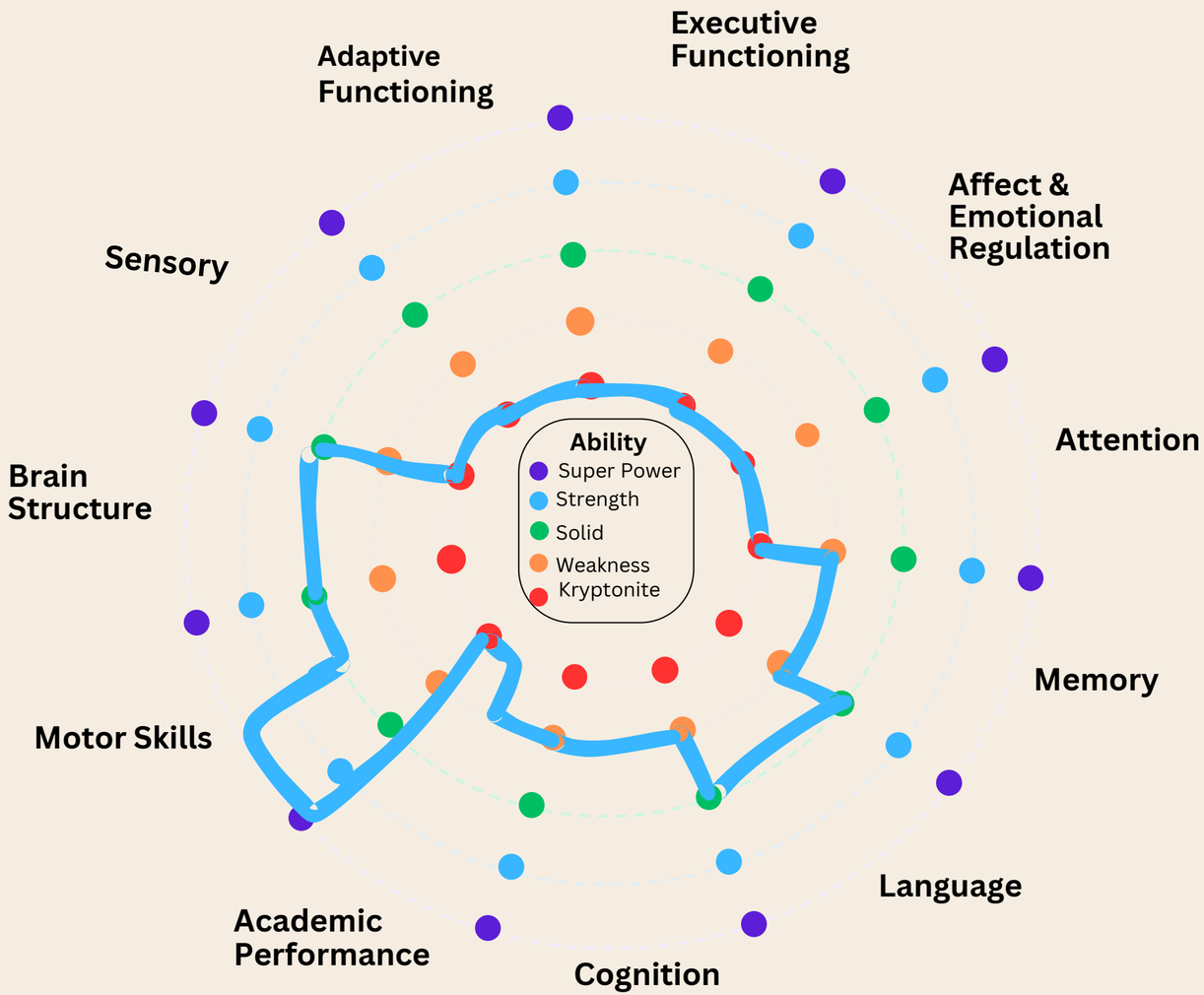
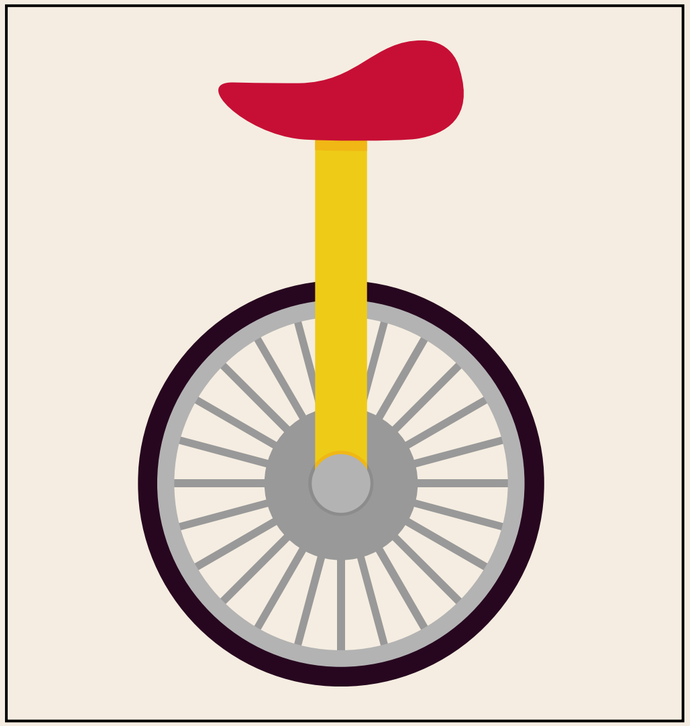


Why Use a Wheel?



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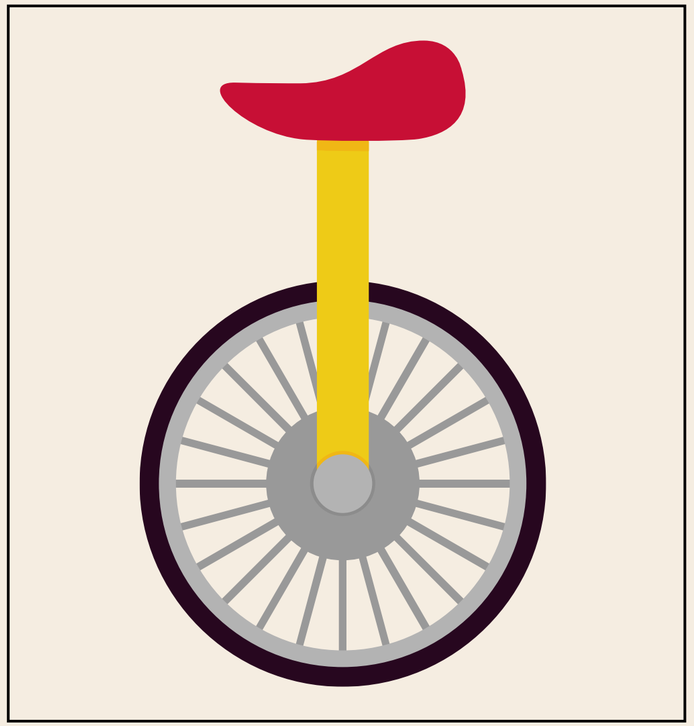
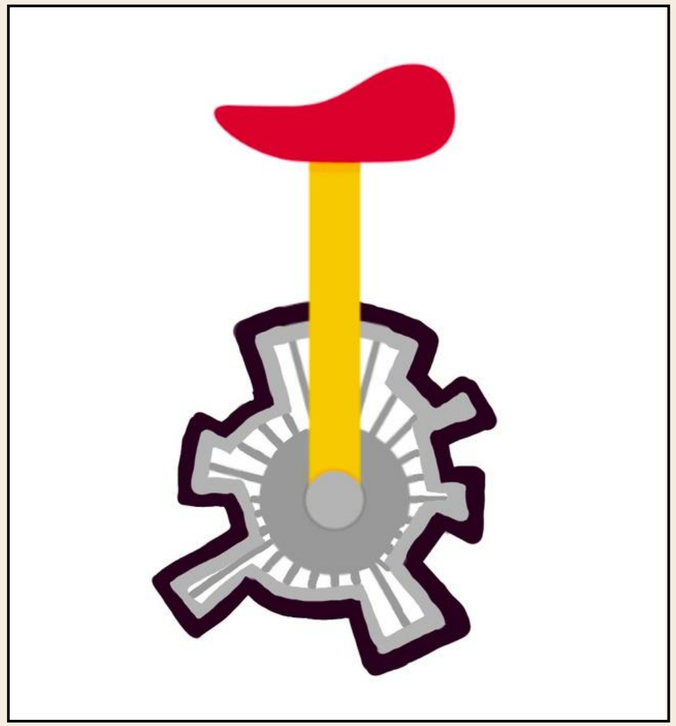
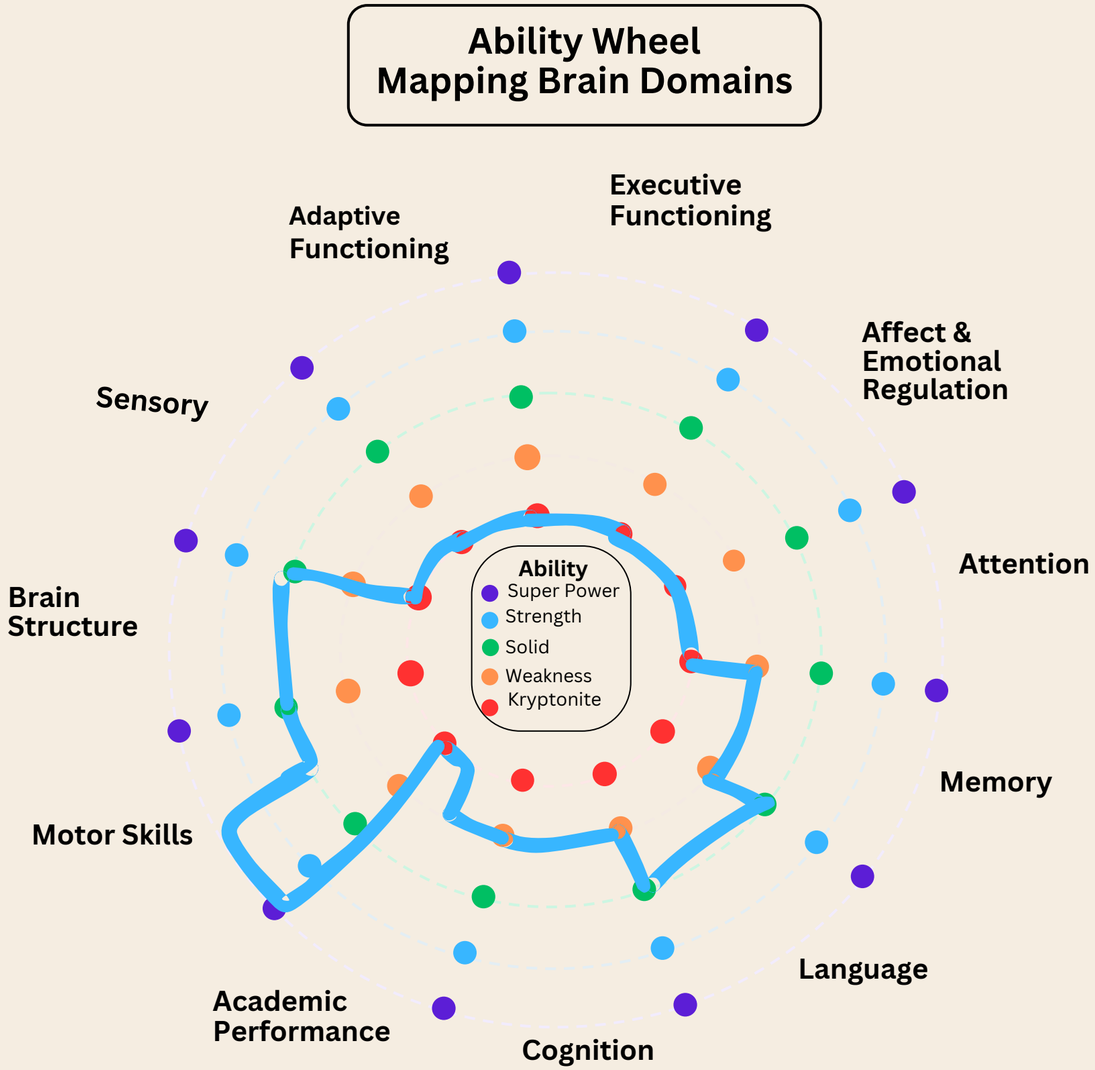




How does this child compare... to other kids their age?



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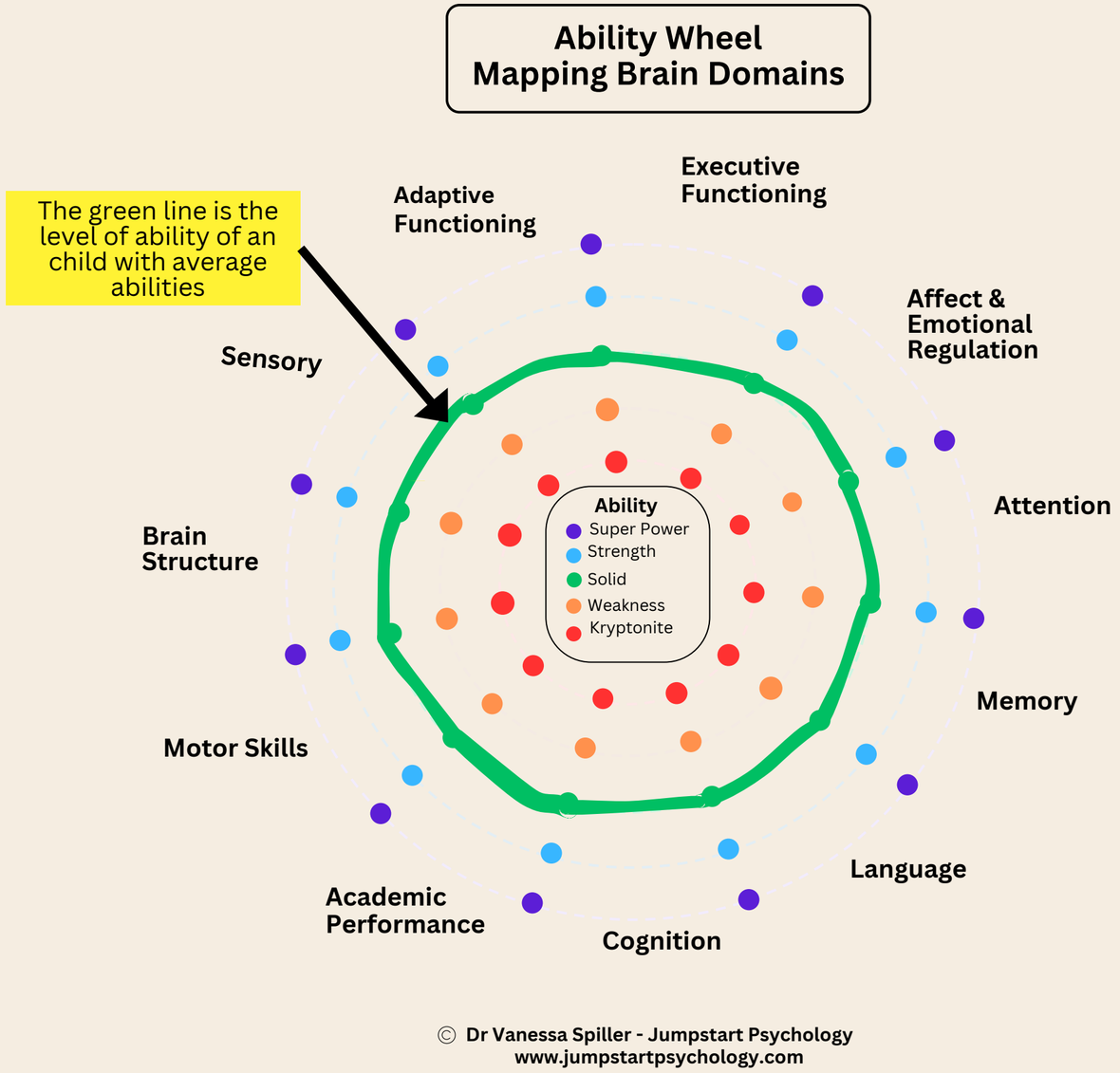

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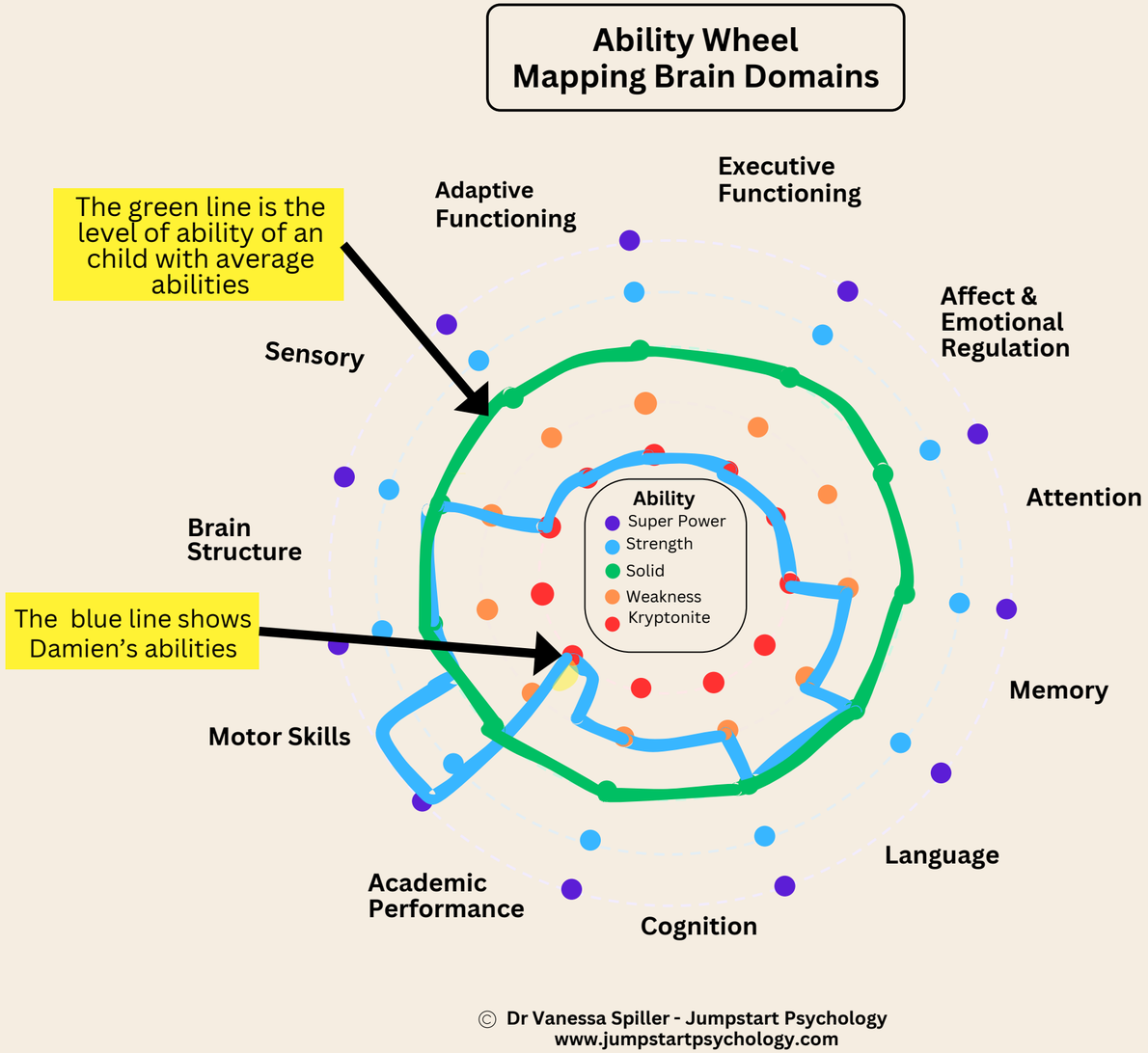
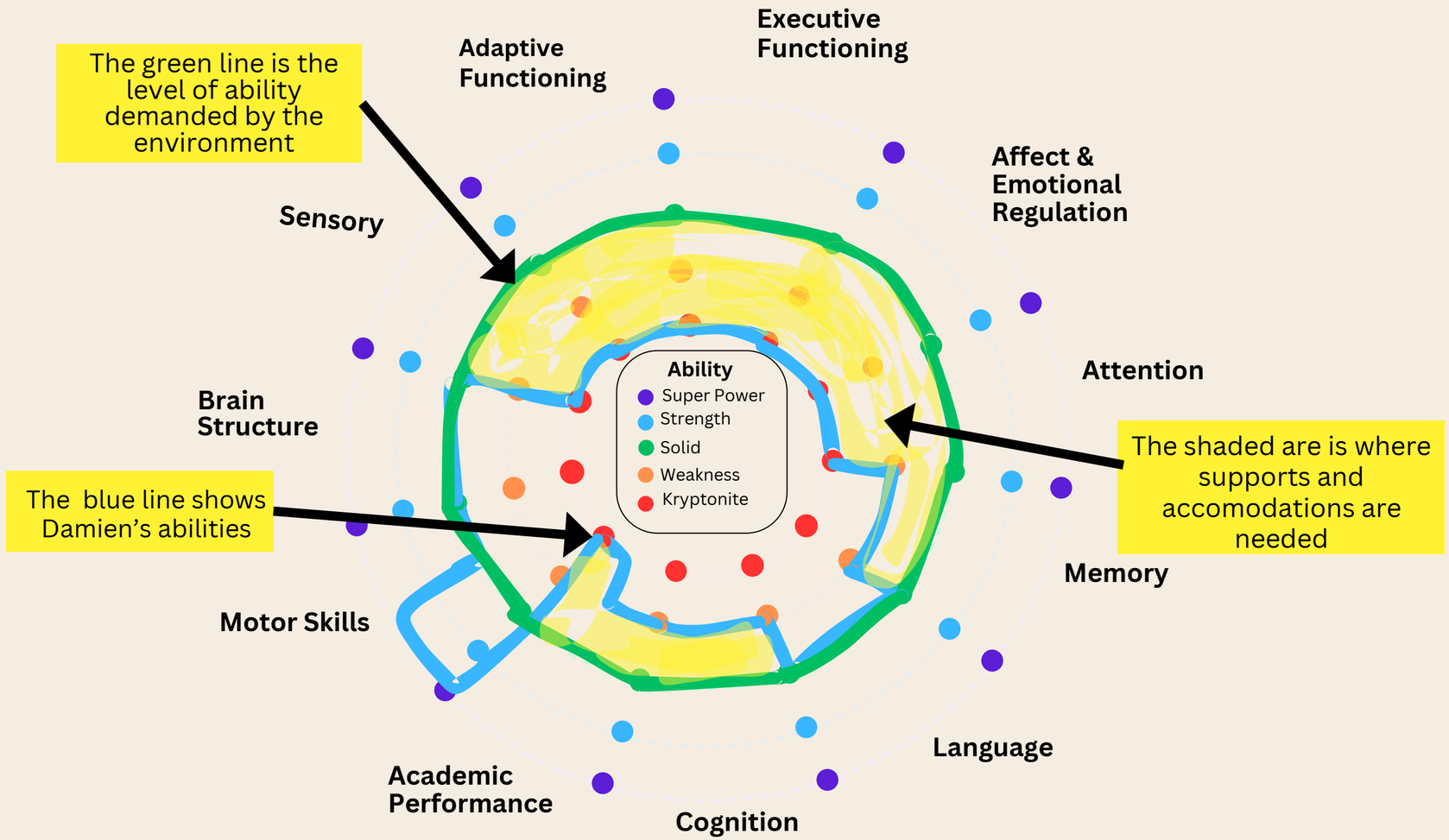


How does this child compare...to other kids their age?

Where do they need supports and accommodations?

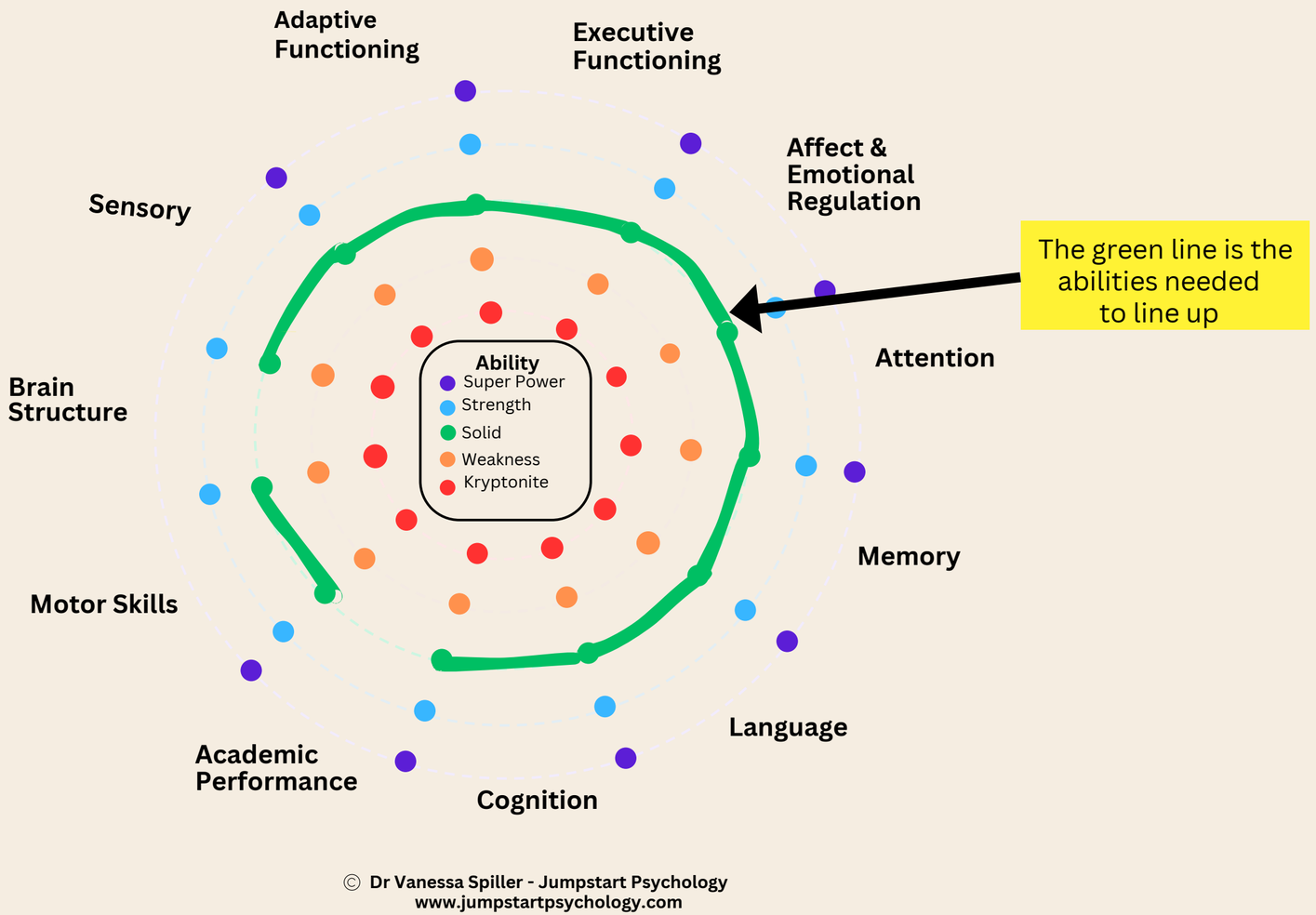
Where do they need to learn skills?

Ability Wheel
Mapping Brain Domains



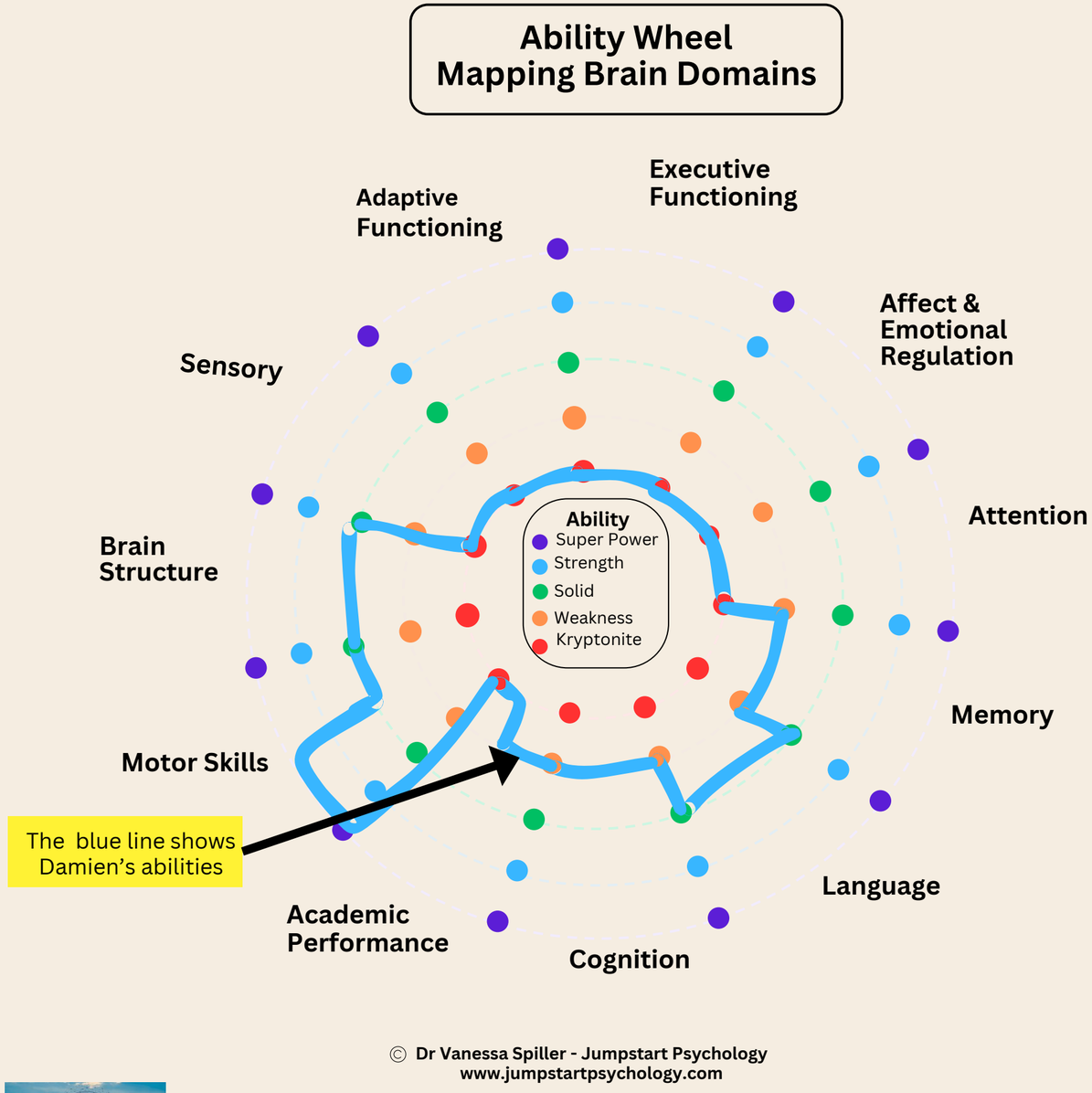
How does this child's abilties fit with the demands of an environment or task?

...Lining up



How does this child's abilties fit with the demands of the environment?

...Lining up

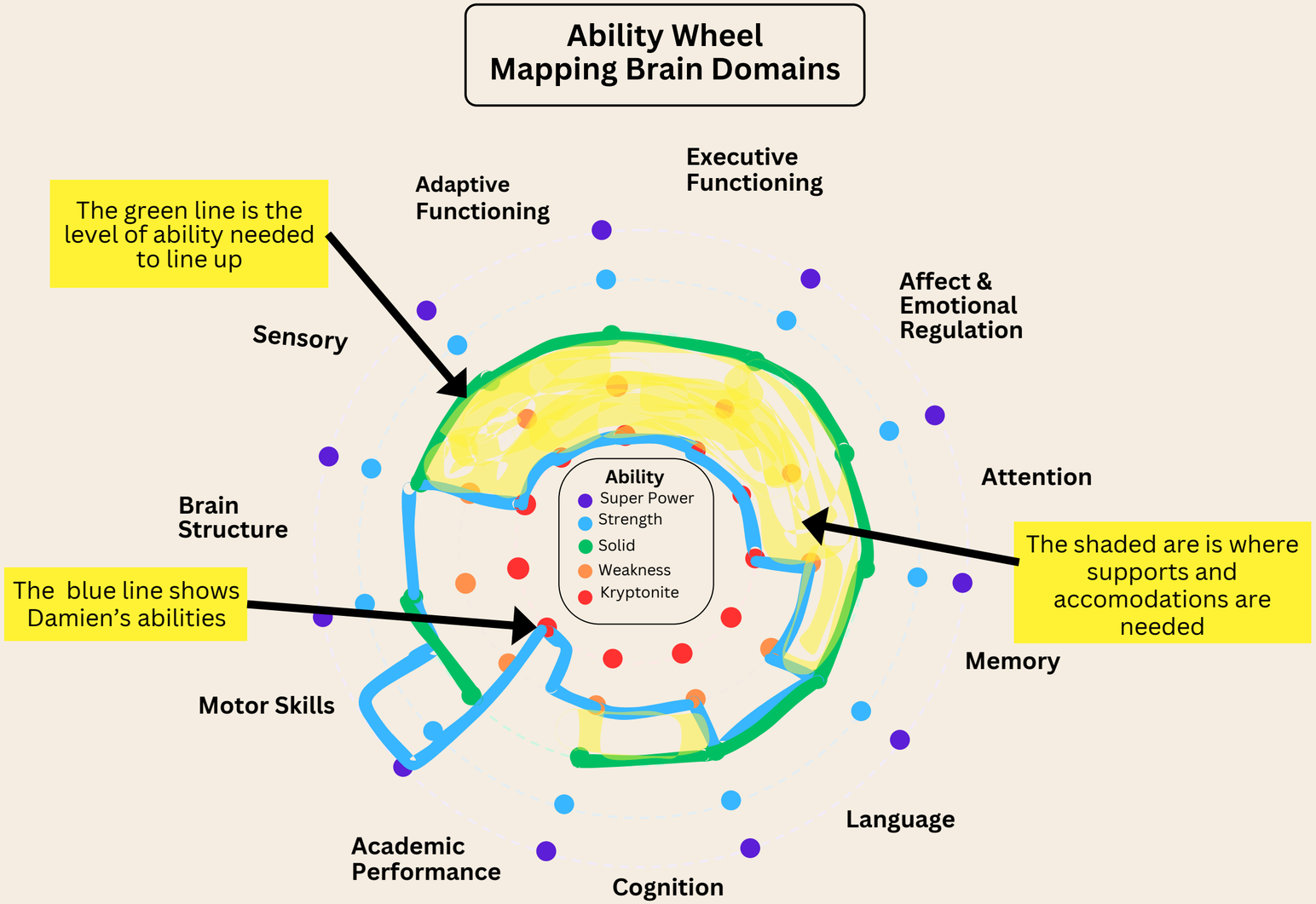


How does this child's abilties fit with the demands of the environment?

...Lining up

Does this child have the ability to line up or do they need supports and accomodations?

Do they need to learn skills first?



Where does this child need supports and accommodations?

Which skills do they need?

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

What Happens When 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

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“Fight or Flight”
Outbursts; Withdrawl; Avoidance

Understanding Levels of Functioning

Levels of functioning is a concept used to describe how able people are to do all the tasks and activities that make up their lives.

- We perform 1000's of tasks and activities per day
- They demand different levels of functioning

5 Levels of Functioning

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.

DOING WITH (DW)

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.

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.

QUASI-INDEPENDENT (QI)

With "quasi-independence," people are able to 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 extremely ill or injured and will only be needed 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.

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.

What is a child's level of functioning in the following areas?

- Controlling their impulses (words and actions), e.g., waiting for turns, calling out
- Standing or sitting quietly
- Starting tasks they don't like, e.g., making the bed, having a shower
- Stopping tasks they really like, e.g., finishing play time or stopping electronics
- Playing without supervision
- Ignore distractions, e.g., noises in class
- Negotiate and agree on rules, e.g., playground games
- Follow simple instructions, e.g., class tasks

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- We perform 1000's of tasks and activities per day
- They demand different levels of functioning
- **Behavioural symptoms arise when our level of functioning doesn't fit the demands of our environment e.g., we are at "doing with" but the environment expects quasi-independence**
- Supports and accomodations must fit our child's level of functioning

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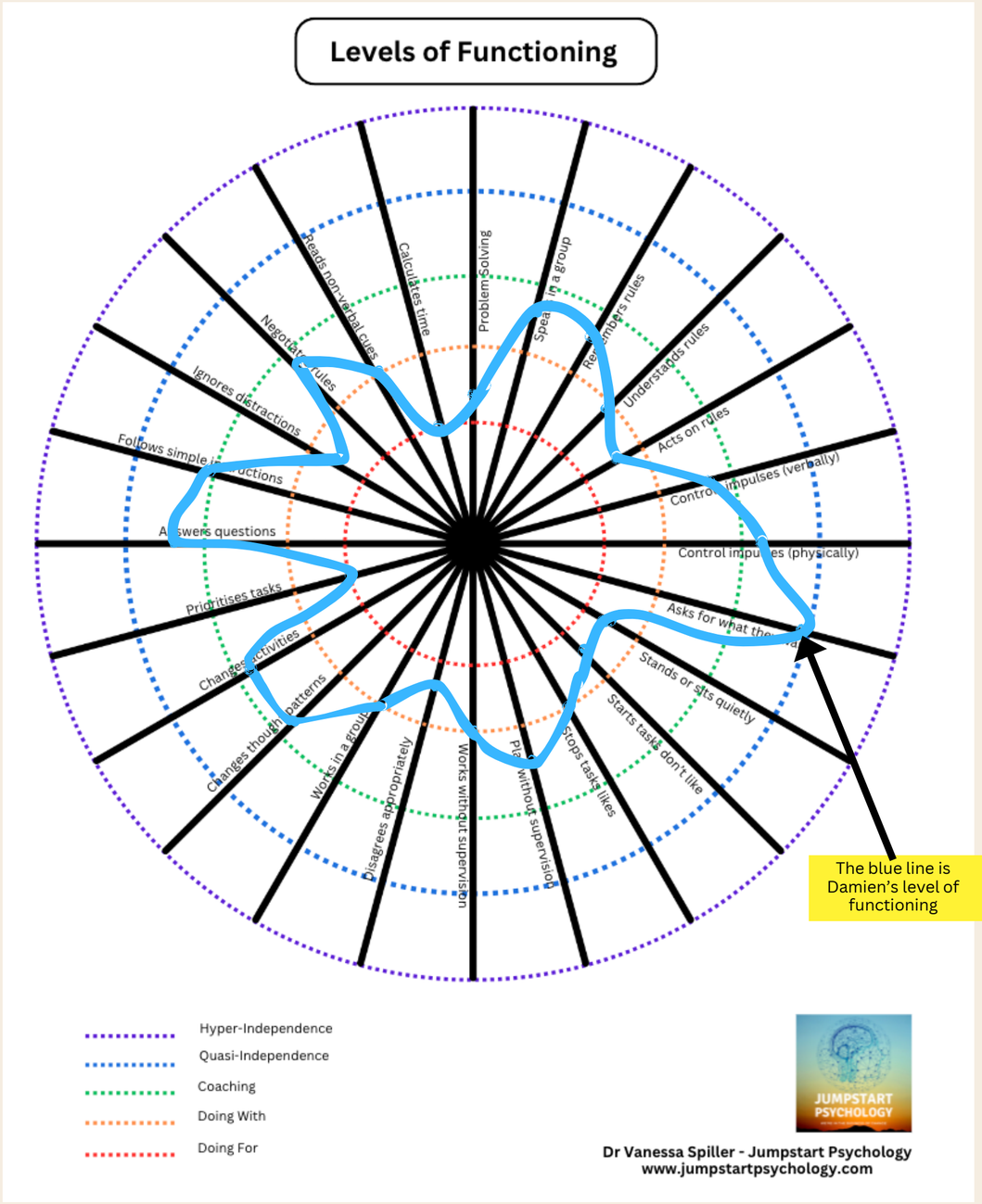
Mapping Levels of Functioning



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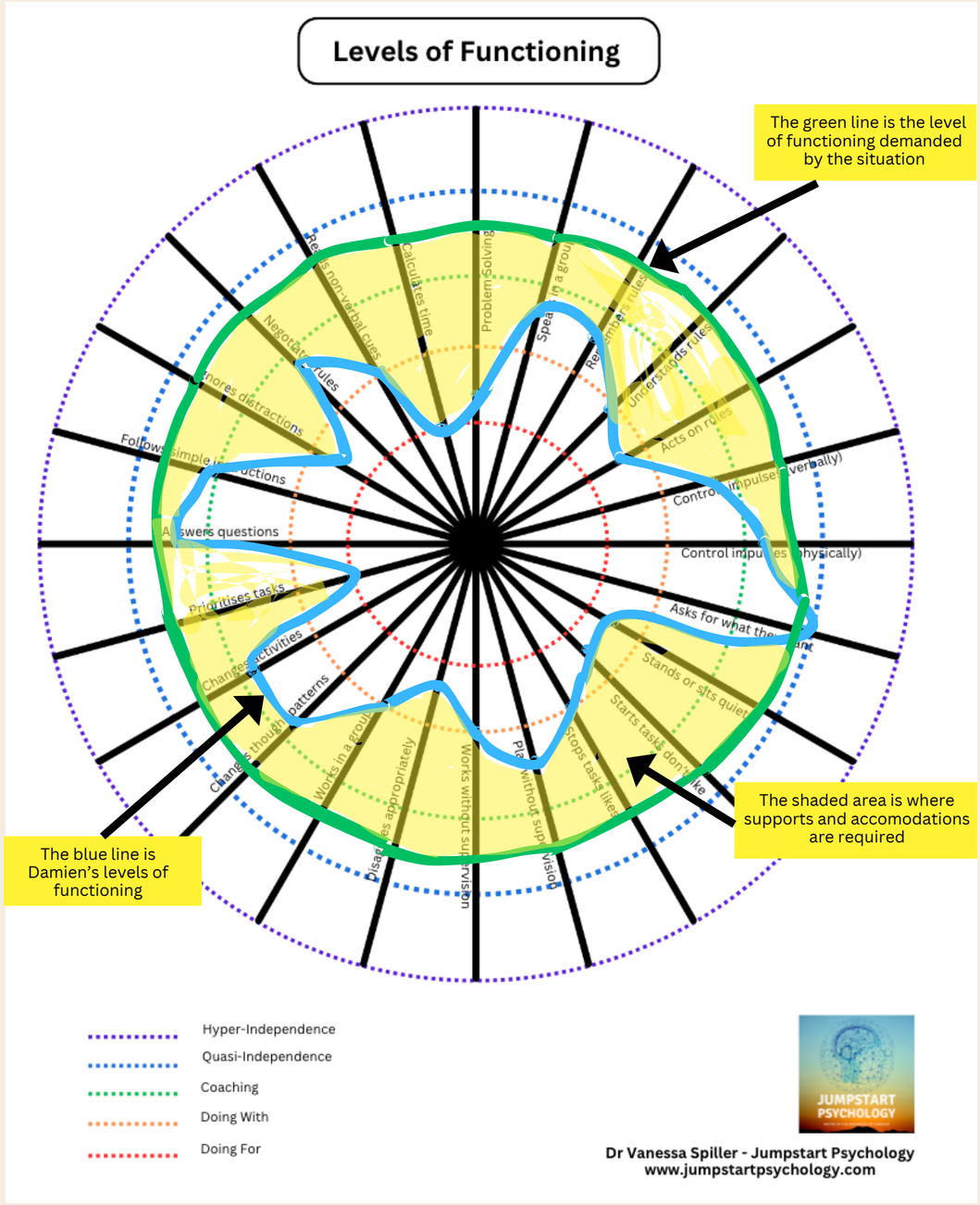
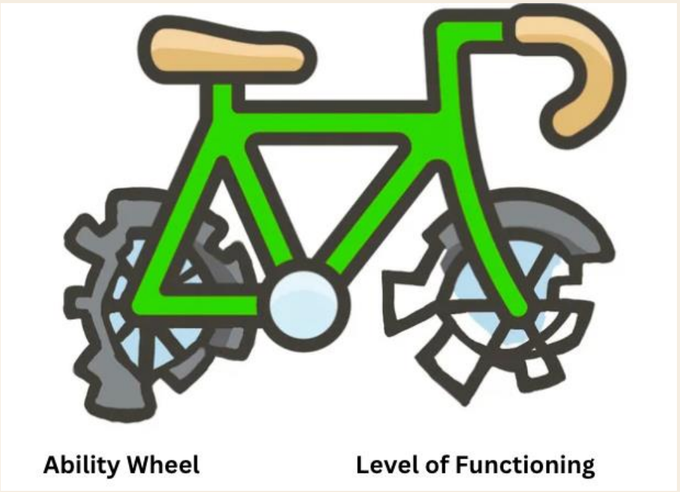
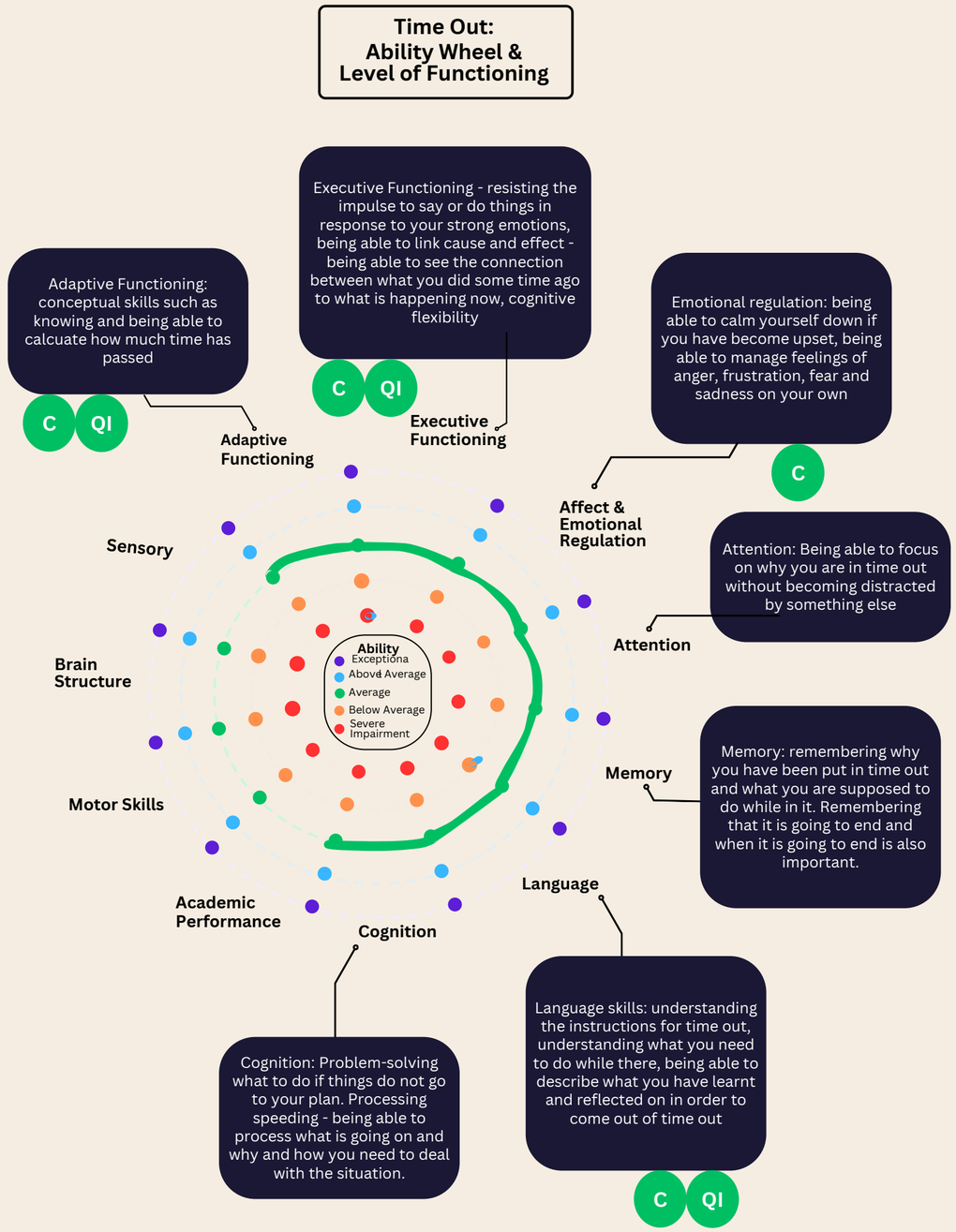


Use This Information to Design Supports and Accommodations that Fit the Child!



And Avoid Parenting and Behavioural Management Strategies and Approaches that Can't Succeed



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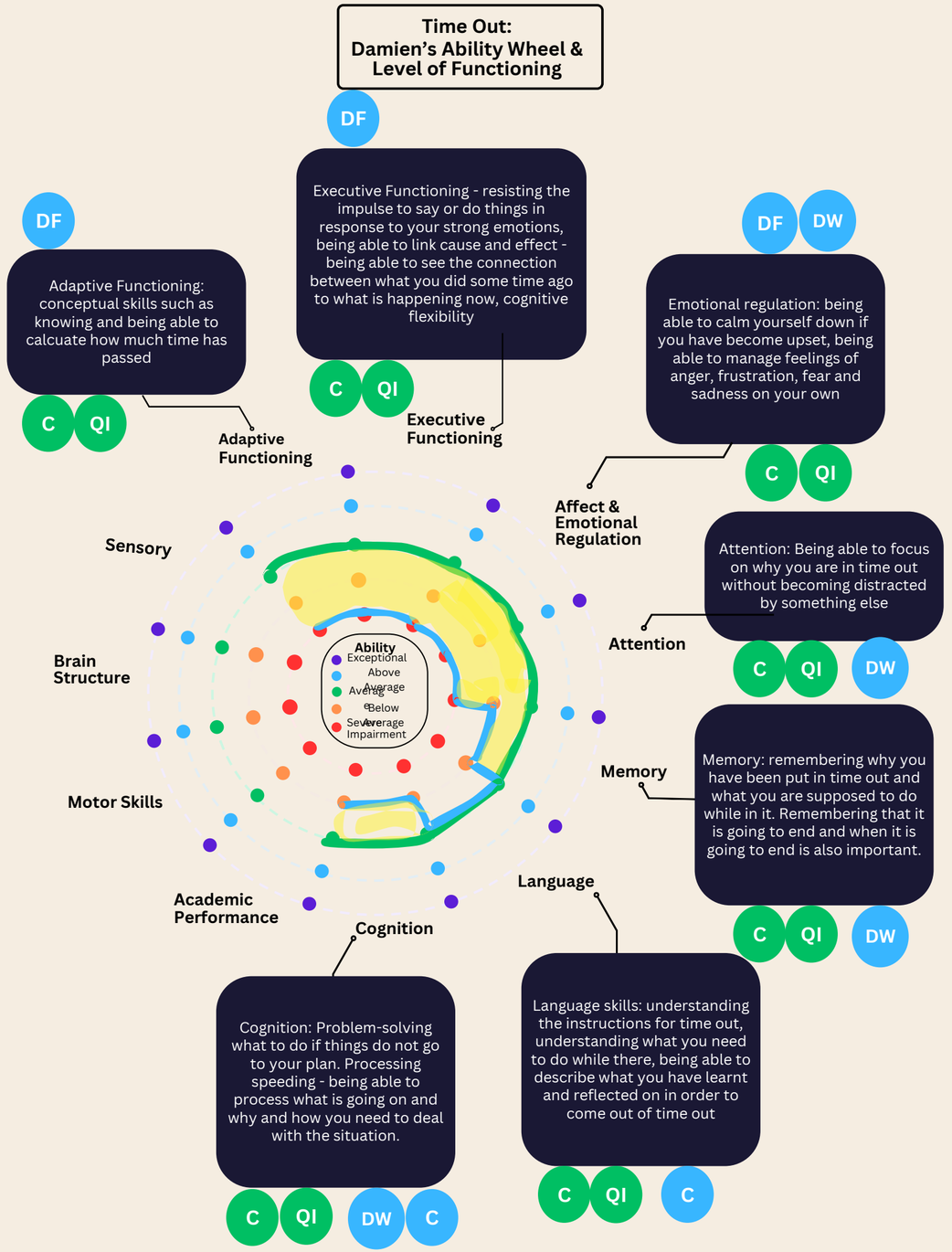
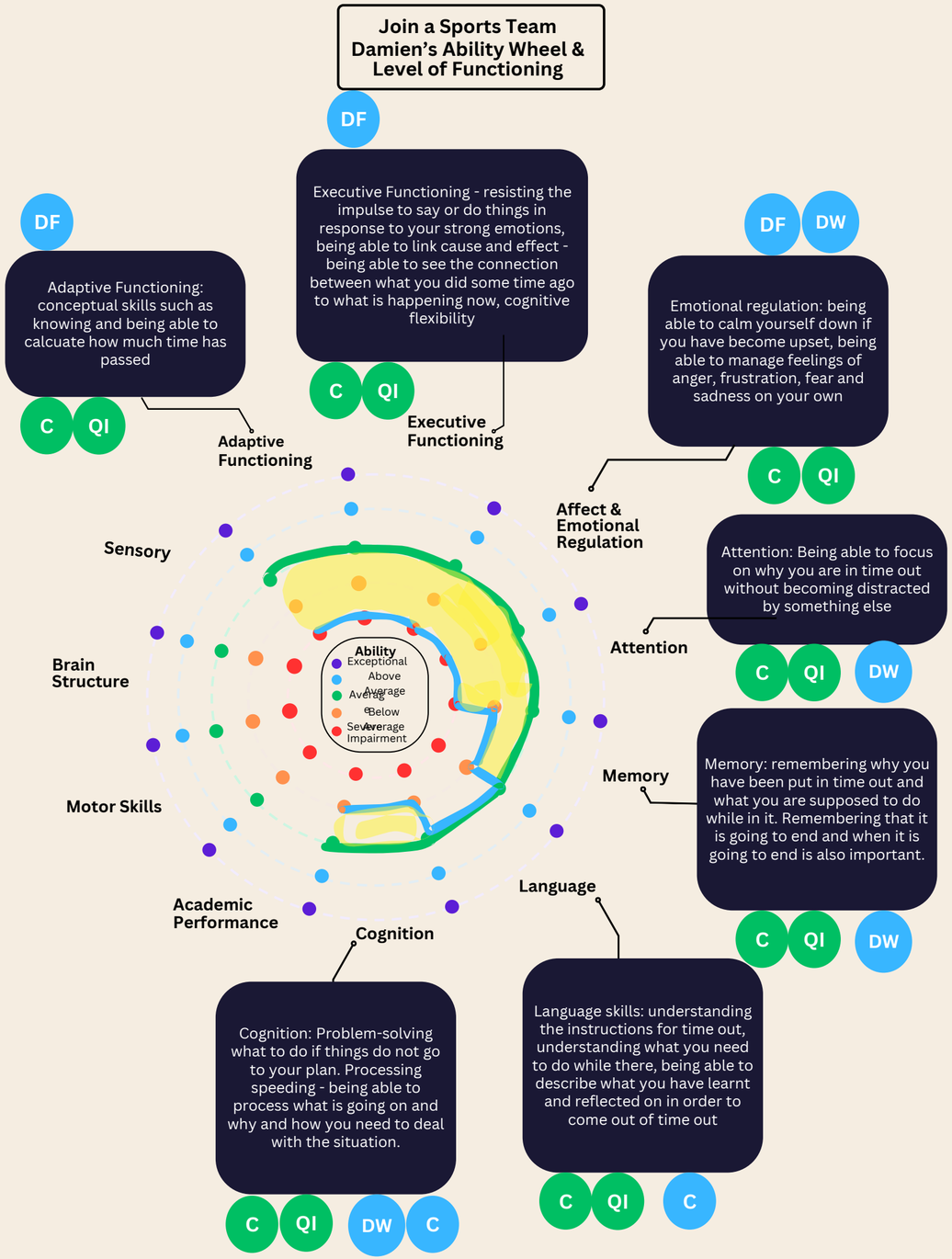


Check that Recommendations and Strategies are a Good “Brain” fit



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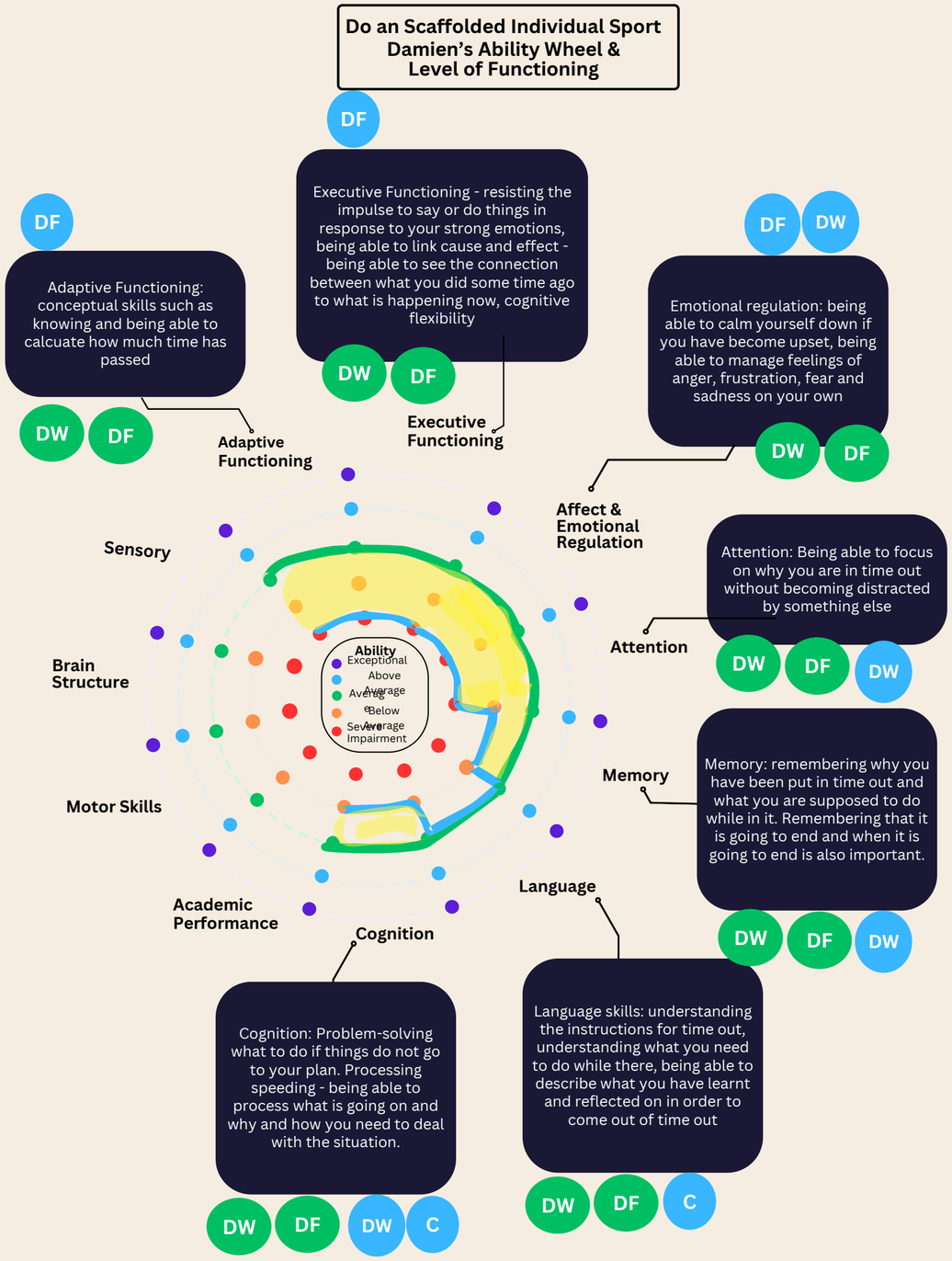


REMAINING CHALLENGE:

DESIGNING EFFECTIVE BRAIN-BASED INTERVENTIONS AT SCHOOL

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

Explained By Brain

Collaborative Proactive Solutions

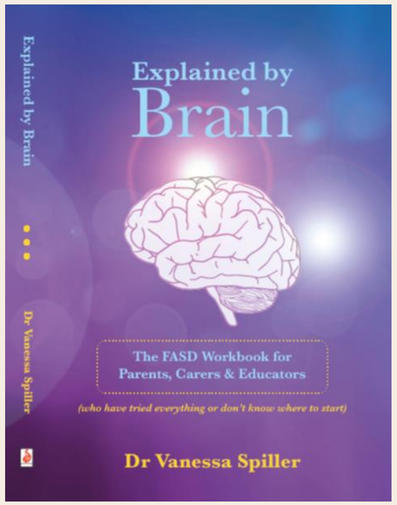
Ross Greene

Neurodevelopmental

Diane Malbin

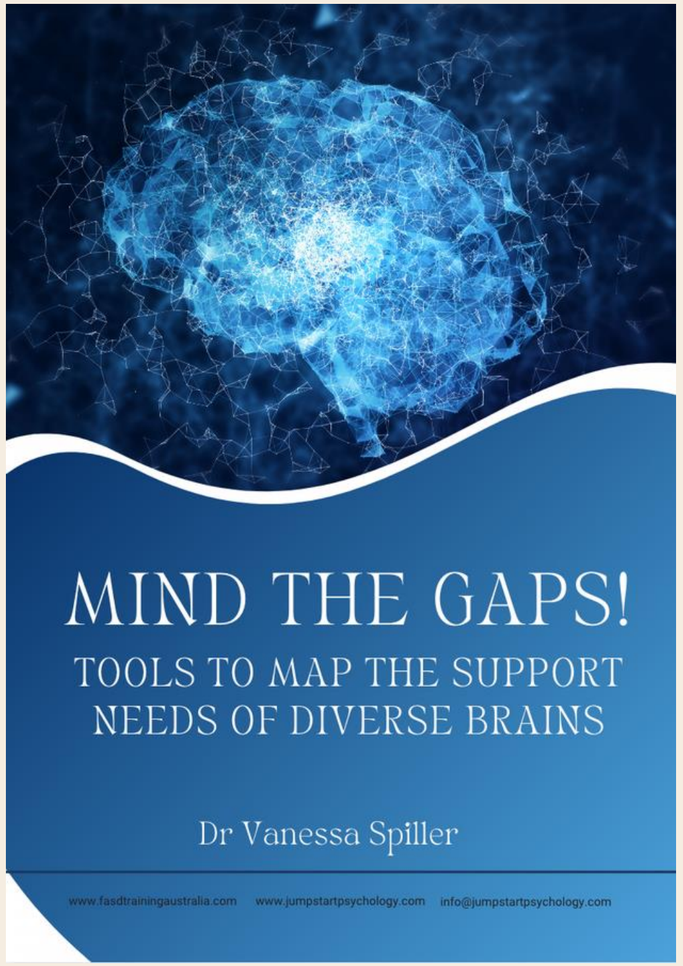
Neurosequential Model

Bruce Perry



Explained by Brain Framework

FASD TRAINING AUSTRALIA
WE'RE IN THE BUSINESS OF CHANGE



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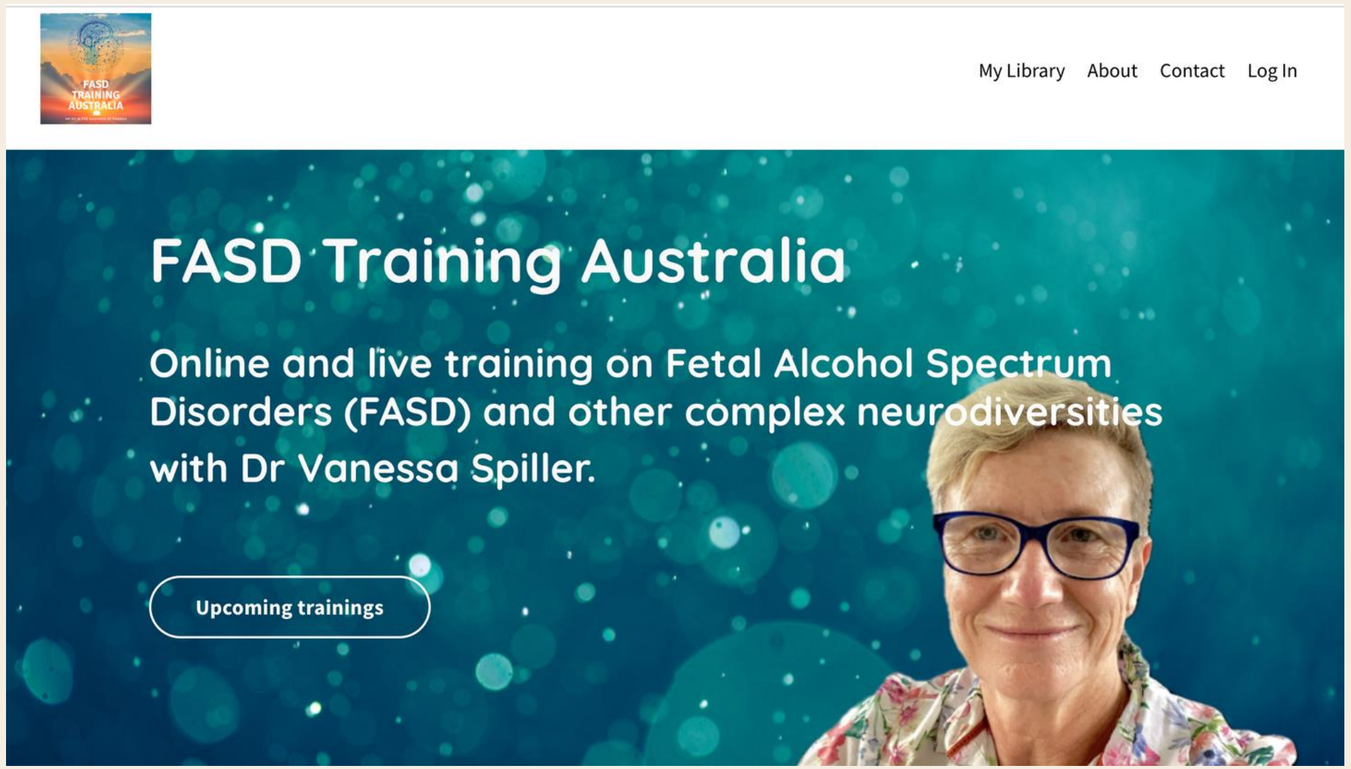

Where you can find me:

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

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.

Learn More & Enrol

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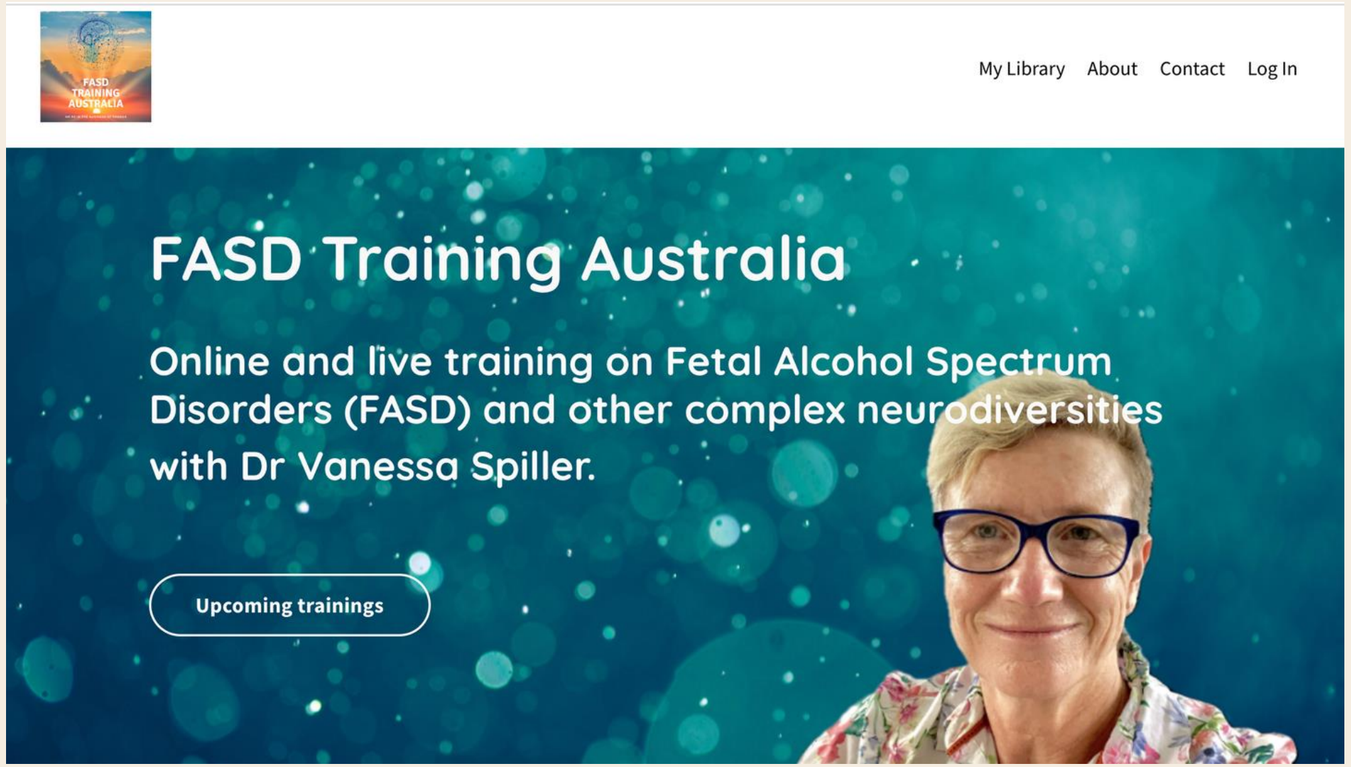

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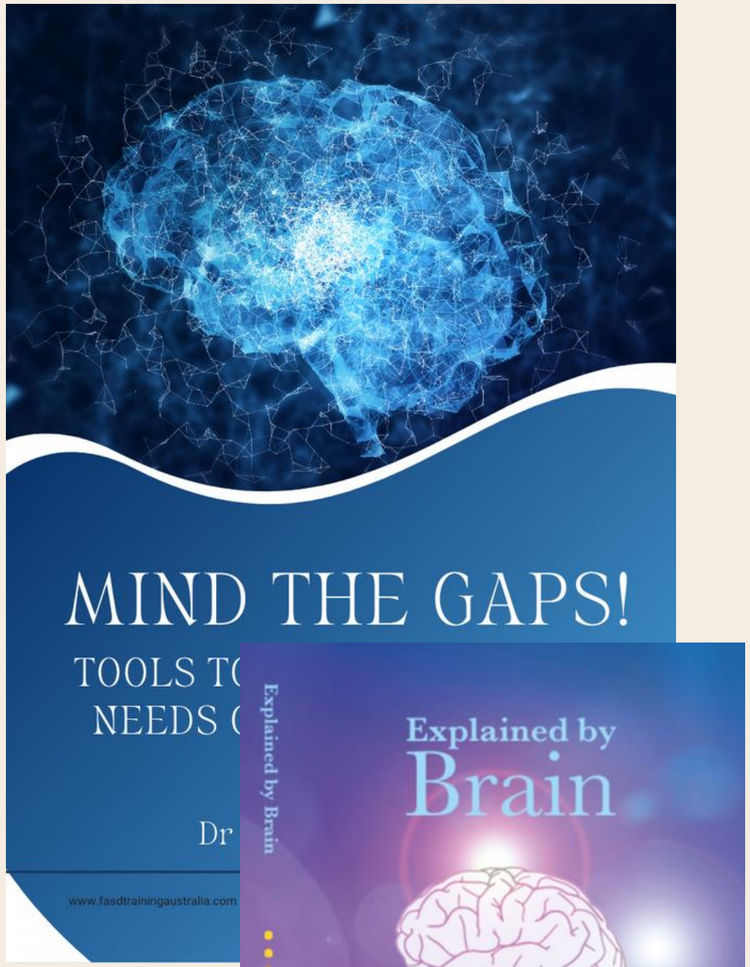

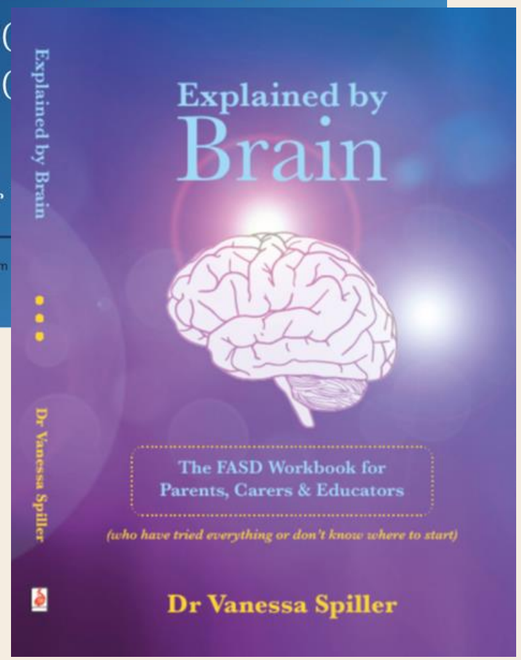

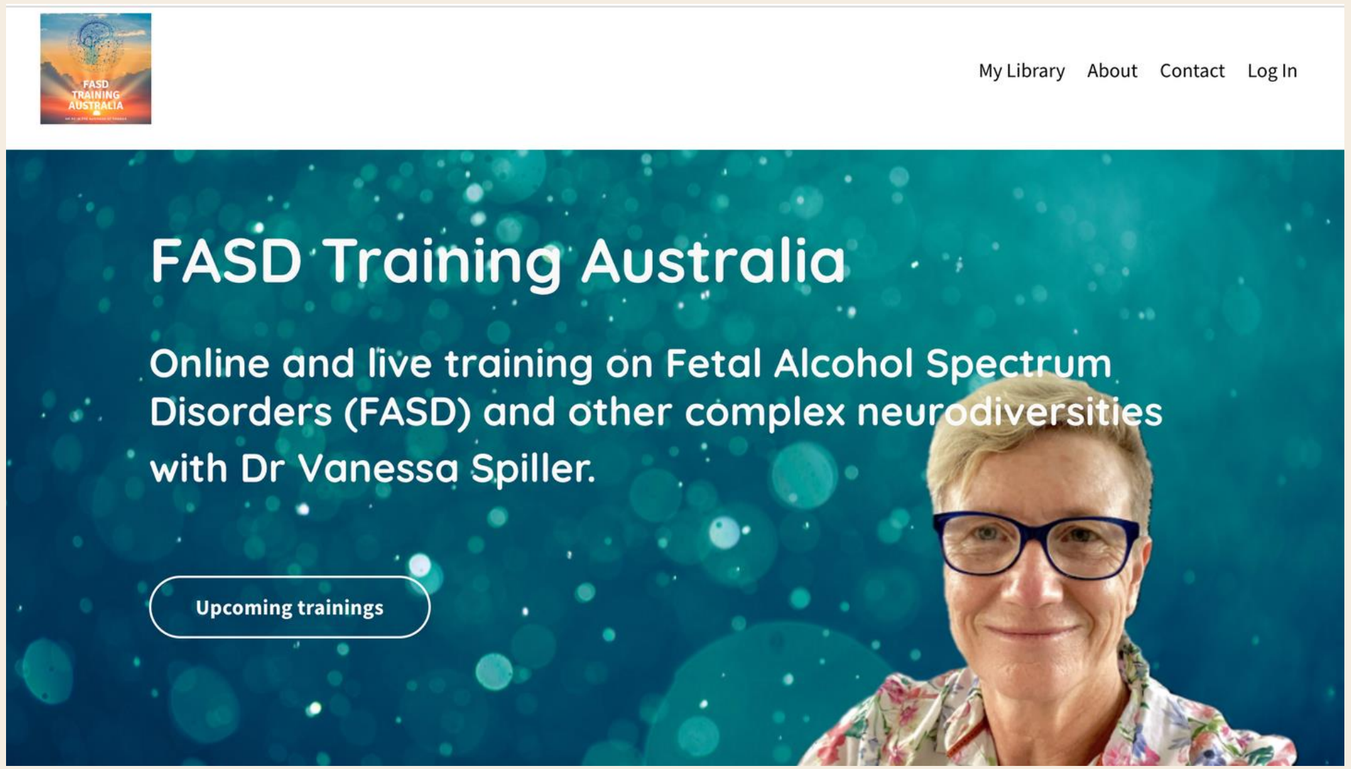

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