Why neurodivergence is a superpower

Exploring the untapped potential that neurodivergent people bring to workplace performance

Version 1.01 (29/8/22)

Researchers

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Stewart is an experienced Business Psychologist and the CEO and founder of Lumina Learning. He is the author of the innovative Lumina Spark psychometric. His research at the University of Westminster has shown that adaptive and ‘maladaptive’ traits can be measured at both ends of the Big Five’s polarities. In conjunction with his own research, Stewart has also designed and delivered a broad range of training programmes and run these internationally. He is particularly focused on looking at how personality can help and hinder people’s application and effectiveness in terms of innovation, leadership, engagement and dealing with pressure.

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Julie is a Business Psychologist and Product Development Lead at Lumina Learning. She is passionate about applying evidence-based rigour to the creation of development and assessment solutions that are valid yet also highly engaging and accessible. In her role at Lumina Learning, she drives the research and development of Innovative 'next generation' psychometric and learning resources including the Lumina Emotion, Lumina Select and Lumina Spark Coach products, as well as bespoke assessment solutions.

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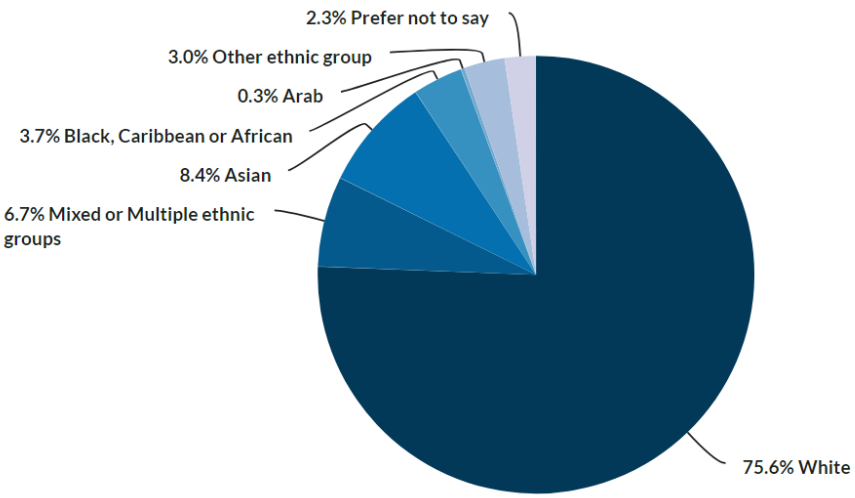
Jonathan is a Business Psycholgist at Lumina Learning. His main interests lie in the rigorous validation of Lumina Learning‘s suite of innovative development and assessment solutions. Jonathan‘s research focuses both on ensuring robust psychometric properties of Lumina Learning‘s assessments, and also on industry-relevant topics, including how Covid has affected our personality and performance at work, the relationship between personality and performance at work, and how psychometrics can help organisations reduce bias and promote diversity.

Research Aims

- Drive a shift in perspective towards how we view neurodivergence at work
- Move towards a strengths-based view on neurodivergence
- Investigate how personality is affected by neurodivergence
- Highlight the strengths associated with typical behavioural indicators of neurodivergence

Research Population

- 293 adults globally
- Data Collected between March and August 2022
- Average age = 42
- 65% female; 32% male; 3% other
- 81% have a degree
- 87% in employment



Measures

- Autism Spectrum Quotient (AQ-10)[1]
- Adult ADHD Self-Report Scale (ASRSv1.1) [2]
- Camouflaging Autistic Traits Questionnaire (CAT-Q) [3]
- Lumina Spark

[1]Allison, C., Auyeung, B., & Baron-Cohen, S. (2012). Toward brief "red flags" for autism screening: the short autism spectrum quotient and the short quantitative checklist in 1,000 cases and 3,000 controls. *Journal of the American Academy of Child & Adolescent Psychiatry*, *51*(2), 202-212.
[2]Schweitzer, J. B., Cummins, T. K., & Kant, C. A. (2001). The adult ADHD self-report scale (ASRSv1. 1). *Medical Clinics of North America*, *85*(3), 10-11.
[3]Hull, L., Mandy, W., Lai, M. C., Baron-Cohen, S., Allison, C., Smith, P., & Petrides, K. V. (2019). Development and validation of the camouflaging autistic traits questionnaire (CAT-Q). *Journal of Autism and Developmental Disorders*, *49*(3), 819-833.

Prevalence of Neurodivergence

Global estimates highlighted in Doyle (2020)[1]

5%	Attention Deficit Hyperactivity Disorder (ADHD)
6%	Autism Spectrum Disorders (ASD)
10%	Dyspraxia (DCD)
1-1.6%	Dyslexia

Estimates can vary dramatically due to differences in diagnostic criteria, differential access to services, and high non-disclosure rates.

This can often result in adverse impact where access to support and required adjustments can be inaccessible due to lack of diagnosis, varying standards, and lack of awareness.

This can be compounded by the relatively recent conceptualisation of neurodiversity by Singer (1999)[2]; whereby for individuals in education before this conceptualisation, access to provisions and support for neurodivergence can often be non-existent.

How we attempt to circumvent this problem in our research

- Recognise the potential barriers to diagnosis or self-identification of neurodivergence
- Respect neurodivergence as a spectrum, rather than binary
- Utilise clinically-validated behavioural indicator scales for ASD and ADHD as proxy indicators of individuals displaying behaviours associated with each
    - AQ-10
    - ASRSv1.1

Prevalence in our Research Population

12%	Formal diagnosis
49%	Self-Identification
21%	Met AQ-10 threshold
43%	Met ASRS threshold

[1]Doyle N. (2020). Neurodiversity at work: a biopsychosocial model and the impact on working adults. *British medical bulletin*, *135*(1), 108–125.

[2]Singer, J. (1999). 'Why can't you be normal for once in your life?' From a 'problem with no name' to the emergence of a new category of difference. In M. Corker & S. French (Eds.), Disability discourse. Buckingham: Open University Press.

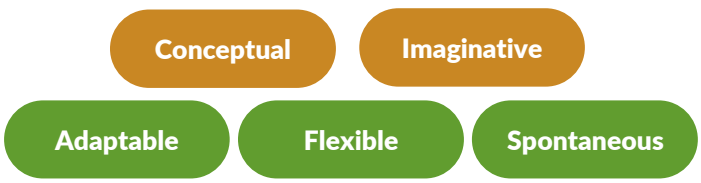
The Relationship between Neurodivergence and Personality

- Focus on Autism Spectrum Disorders (ASD) and Attention Deficit Hyperactivity Disorder (ADHD)
  - Due to insufficient sample size for other forms of neurodivergence
  - Continuation of research will aim to replicate analysis with other forms of neurodivergence

		AQ-10		ASRS	
Big Picture Thinking	Conceptual	-.07		.26	**
	Imaginative	.04		.40	***
	Radical	-.10		.17	
Down to Earth	Practical	.19	*	-.10	
	Evidence-Based	.42	***	-.06	
	Cautious	.23	*	-.06	
Extraverted	Sociable	-.50	***	.02	
	Demonstrative	-.31	***	.12	
	Takes Charge	-.40	***	-.05	
Introverted	Observing	.44	***	-.03	
	Measured	.37	***	-.08	
	Intimate	.39	***	-.01	
People Focused	Accommodating	.16		.18	
	Collaborative	-.32	***	.08	
	Empathetic	-.04		.19	*
Outcome Focused	Tough	-.08		-.13	
	Competitive	-.09		-.05	
	Logical	.03		-.11	
Discipline Driven	Purposeful	.14		-.19	*
	Structured	.17		-.28	**
	Reliable	.08		-.28	**
Inspiration Driven	Adaptable	-.10		.26	**
	Flexible	-.13		.37	***
	Spontaneous	-.18	*	.39	***

- Analysis on the relationship between scores on the AQ-10 (ASD), ASRS (ADHD), and Lumina Spark 24 Qualities
- High correlation between behavioural indicators of ASD and ADHD (.43***)
- Behaviours associated with ASD highly correlated with being:

- Behaviours associated with ADHD highly correlated with being:

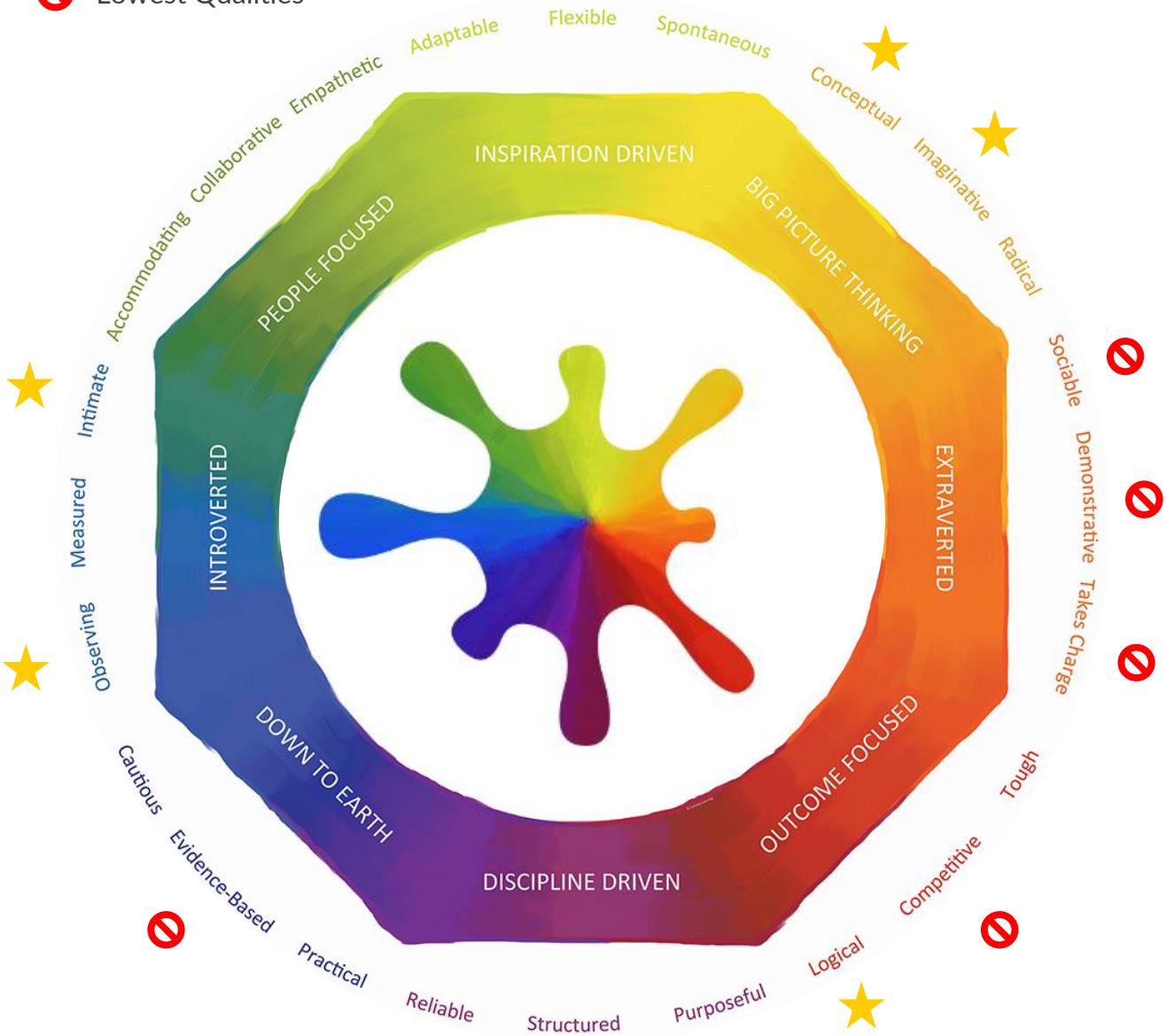


How does this show up as a Lumina Splash?

Typical splash associated with behavioural indicators of ASD

★ Highest Qualities

⊘ Lowest Qualities

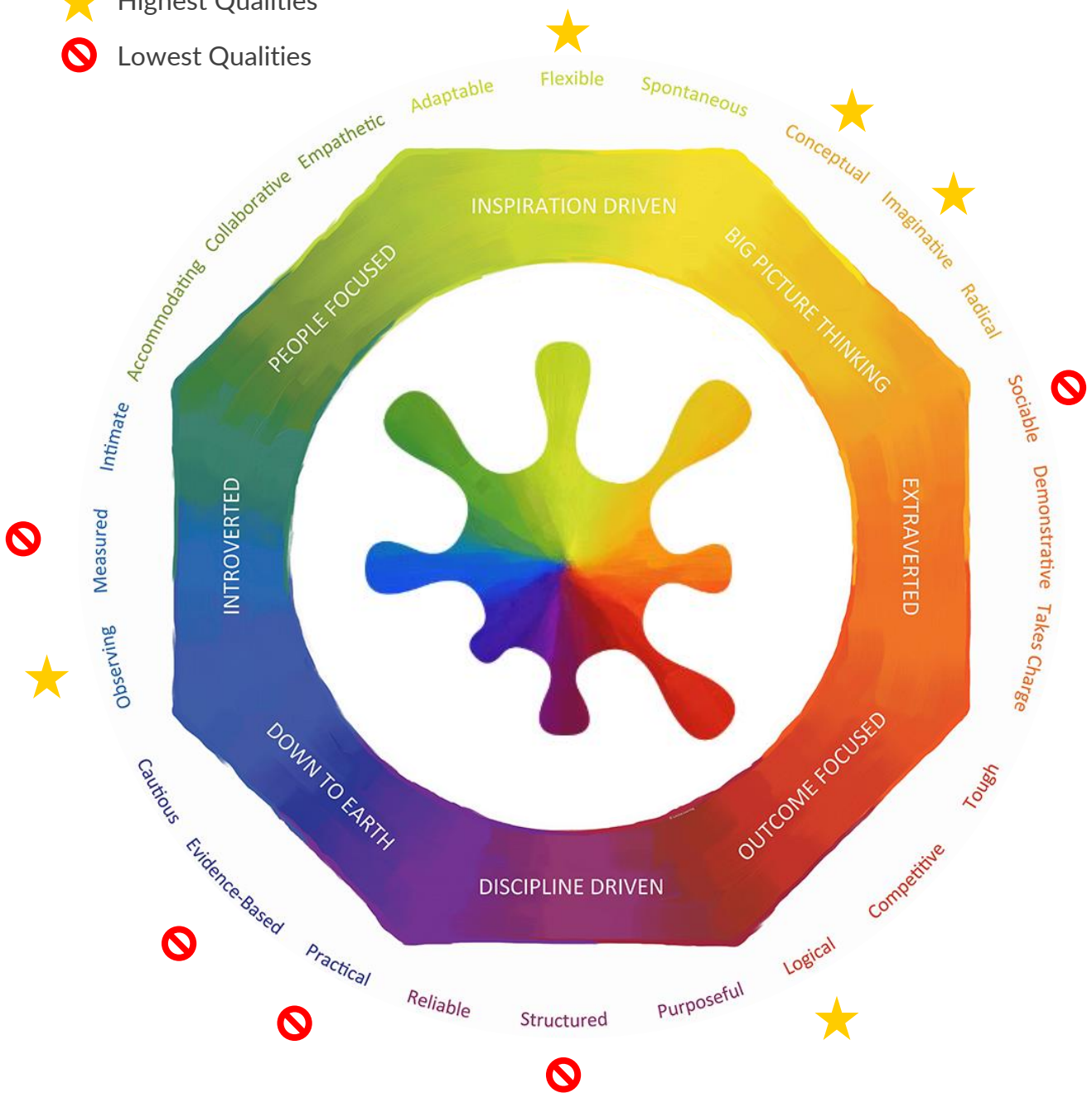


How does this show up as a Lumina Splash?

Typical splash associated with behavioural indicators of ADHD

★ Highest Qualities

⊘ Lowest Qualities



A shift in perspective

Much of the research on neurodivergence at work until now has largely focused on the **challenges faced, deficits held, and relative weaknesses**.

This perspective, while helpful in determining necessary support and recommended adjustments, can be detrimental in being able to highlight the **strengths that can be brought about through neurodivergence**.

This creates an inherent bias against neurodivergent individuals, whereby their **strengths and value-adds are overshadowed by a focus on weaknesses**.

There needs to be a platform through which their **unique strengths, abilities, and qualities can be highlighted**. This shift in perspective will start to **break down the barriers to employment** currently faced, reduce any negative and false preconceptions on what it means to be neurodivergent, and provide the beginnings of an equal footing whereby **employers and employees alike can benefit**.

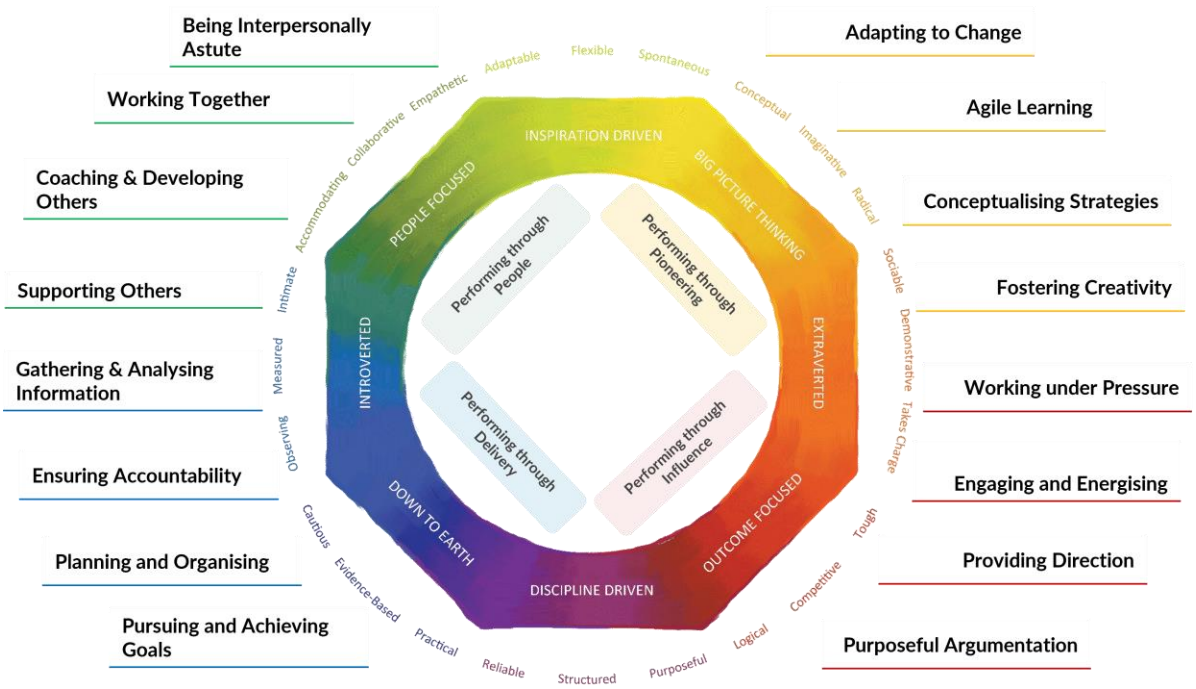
Through highlighting the personality traits commonly associated with ASD and ADHD, we can start to bring to light the differential strengths brought by these forms of neurodivergence in the form of **competency potential**, using the Lumina Select Competency Framework.

Competency potential refers to behavioural characteristics that provide a dispositional, behavioural, and motivational foundation for certain competencies to be displayed.

High competency potential scores suggest that behaviours related to a specific competency will **come easily to an individual**.

Low competency potential scores suggest that displayed behaviours related to a competency might **take more effort for an individual**.

The Lumina Select Competency Framework



The **Lumina Select Competency Framework** consists of 4 domains and 16 competencies, designed to reflect the complexities of many work environments, wile also valuing all personality traits.

Unlike many other frameworks, this aims to be balanced in terms of **valuing all ways of being equally**, where unbalanced frameworks have the potential of adverse impact towards neurodivergent individuals, through valuing certain traits more than others.

The Value of Neurodivergence

To highlight the value of neurodivergence through the lens of competency potential, a comparison was made between individuals reporting more behavioural indicators of ASD and ADHD and those reporting fewer; average competency potential scores and high-score prevalence within these groups were considered.

Competencies Associated with Behavioural Indicators of ASD

Pursuing and Achieving Goals

Being ambitious, persevering and focused in order to achieve targeted results

Planning and Organising

Being an effective and prompt planner

Ensuring Accountability

Being disciplined, maintaining a consistent work ethic and being responsible

Gathering and Analysing Data

Being analytical and thorough when gathering and verifying information in order to solve problems effectively

The Value of Neurodivergence

Competencies Associated with Behavioural Indicators of ADHD

Adapting to Change

Having a flexible approach and a willingness to evolve in changing work environments

Agile Learning

Applying an exploratory and curious approach, underpinned by a willingness to experiment, take risks and try unconventional methods

Conceptualising Strategies

Having a broad vision aligned to a keen strategic mind. Being able to detect patterns and shifts in the market as well as having the capability to plan towards accomplishing long-term goals

Fostering Creativity

Being imaginative, exploring new ideas, coming up with new ways of solving a problem and driving innovation

What does this mean?

The analysis on differential competency potential based on behavioural indicators of ASD and ADHD shows a clear trend emerging in how we can reframe any preconceptions on what it means to be neurodivergent at work.

Moving away from a deficit-oriented view on neurodivergence, we can start to really highlight the strengths associated with these two forms of neurodivergence.

Individuals reporting more behavioural indicators of **ADHD** tended to score higher on the **Performing through Pioneering** competencies. These competencies largely consist of **Big Picture Thinking** and **Inspiration Driven** qualities, and reflect an individuals increased propensity for being able to **adapt easily to change, pursue self-development, form long-term views, and drive innovation**.

Those reporting more behavioural indicators of **ASD** tended to score higher on the **Performing through Delivery** competencies. Comprised of **Discipline Driven**, **Introverted**, and **Down to Earth** qualities, these reflect those comfortable with **showing tenacity in achieving results, planning effectively, maintaining a consistent work ethic, and showing a meticulous eye for detail**.

Developing Low Qualities

Previous analysis highlighted the top and bottom qualities most commonly associated with behavioural indicators of ASD and ADHD.

While we certainly want to shine a light on the strengths afforded through neurodivergence, we still have to be mindful of any potential challenges that may arise.

Having low qualities does not suggest any inherent deficit, it is a natural part of human personality, and we can't expect anyone to be perfect.

Low qualities simply mean that those traits might not come as naturally to someone, not that they can't leverage them.

Here are some tips to develop those qualities highlighted previously:

- **Sociable** – make an effort to proactively network, even if only one-to-one
- **Demonstrative** – let your passion for what you're speaking about energise you
- **Takes Charge** – seize the initiative to exert influence in groups, even if not taking a front-seat leadership position
- **Competitive** – focus on a win/win mindset, winning doesn't necessarily mean others have to lose
- **Evidence-Based** – focusing on the details doesn't have to mean you enjoy it, but rather you enjoy getting things right
- **Practical** – Keeping it simple doesn't mean ignoring the big ideas, but rather breaking them down into manageable chunks
- **Measured** – strike a balance between when to be energised, and when to be more contained and low-key
- **Structured** – making a plan doesn't mean it can't change, rather it can guide your immediate priorities in achieving ambitious goals

Managing Overextensions

Having highlighted the various strengths that neurodivergent individuals can bring to the table, we also need to be conscious of potential blind spots that may arise as well. These are not unique to neurodivergent people, but rather exist in everyone.

Overextensions refer to overplayed strengths, which could result from stress, or simply could be “too much of a good thing”, potentially manifesting into maladaptive, unhelpful behaviour. However, our research has found that those who are able to effective manage their overextensions are rated as performing 16% better than those who do not. Supporting individuals to be more comfortable at recognising and managing their overextensions means they can be their more productive and happy self.

Journey to Composure is a companion coaching exercise to Lumina Spark, implementing five practical steps to help people remain composed under pressure and stress. It supports people to identify their overextensions, understand the context in which they may appear, and use their effective strengths to guide them out of overextension, and help avoid this in the future.

To find out more about Lumina Spark’s Journey to Composure, click here:
[Introducing Journey to Composure | Lumina Learning]

The Future of this Research

This research on the value of neurodivergence at work is far from complete. With a present focus on ASD and ADHD, more data is required in order to expand the focus to other forms of neurodivergence, including Dyslexia, Dyscalculia, Dyspraxia, Tourette Syndrome and many others.

Data is also being gathered on how neurodivergent individuals experience workplace assessments (interviews, ability tests, personality assessments…), with the aim of further understanding challenges faced, accuracy of these assessments, and how we can move away from a "one-size-fits-all" approach to necessary adjustments, and towards a more tailored approach, taking into consideration the unique challenges brought about by all forms of neurodivergence.

All of these aims mark a move towards creating workplaces more inclusive of neurodivergence, dispelling any preconceived notions we might have on what it means to be neurodivergent, and pivoting towards a strengths-based view of neurodivergence, while remaining considerate of any necessary support and adjustments.

Further iterations on this white paper will be produced as we collect more data and expand the scope of the research. Keep an eye on www.luminalearning.com to stay up to date.

See our research in action or find out more about how we can support you by exploring our upcoming events:

https://luminalearning.com/upcoming-events/