



Neurodiversity and Enterprise Education:

How can we facilitate neurodivergent student success?

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Introduction

With an estimated 1 in 5 people being neurodivergent whether formally diagnosed or not, the conversation about how best to support neurodivergent students is becoming an increasingly important topic within higher education, generally, but may be of particular relevance to entrepreneurship and enterprise educators.

Neurodivergent individuals are significantly more likely to be unemployed; in the US, 85% of individuals on the autism spectrum are unemployed in contrast to a 4.2% overall unemployment rate (Mahto, 2023). In the UK, 21.7% of autistic people are employed (Riley et al., 2021). Unsurprisingly perhaps, enterprise and self-employment may appear an attractive avenue of employment for those facing challenges accessing employment in the labour market while also seeming to offer more flexible working options (Treanor and Burkinshaw, 2023). This may be the case for neurodivergent students also. The benefits of neurodivergent thinking such as creativity, lateral thought, attention to detail, pattern recognition, hyperfocus, drive and perseverance may prove advantageous for entrepreneurs (Moore et al., 2021). In terms of opportunity recognition, for example, research indicates that entrepreneurs with ADHD have significantly higher levels of entrepreneurial alertness (Moore et al., 2021). In the UK, 17% of self-employed individuals have a registered disability (Labour Force Survey, 2022); however, many neurodivergent individuals do not have a diagnosis and where they do, under-reporting is commonplace (Vorley et al., 2020) which confounds assessment of the extent of under-representation (Treanor, 2021). Given the complexities of defining both neurodiversity and entrepreneurship, and how readily individuals assign themselves to either definition, it is apparent that substantial gaps exist in knowledge and understanding across academic literature, administrative data and practitioner design of appropriate support offerings which may have a significant impact upon those starting or running a business or contemplating doing so.

The challenge in creating inclusive classrooms and training environments is the heterogeneity within and across neurodivergent conditions and how these are experienced by individual learners. However, it is acknowledged that in many cases, in addition to the “superpowers” that accompany neurodivergence, neurodivergent individuals are also more likely to experience increased anxiety, feelings of overwhelm, rejection dysphoria and procrastination. These are issues that should concern educators seeking to create inclusive educational environments that can support all individuals to achieve learning outcomes and

be successful. Unfortunately, anecdotal evidence suggests that a standard enterprise education approach does not facilitate neurodivergent students to reach their full potential. Whilst making generalisations about neurodivergent students is problematic, enterprise educators do need to consider a variety of approaches when thinking about making their service offer truly accessible to the full student population within their institutions. To that end, we invited enterprise educators to share examples of good practice within their organisations and to identify common challenges and obstacles to supporting neurodivergent students, so that we might highlight key considerations, activities and supports that could facilitate neurodivergent students to succeed within both the classroom and wider entrepreneurial ecosystem.

Neurodiversity

Coined by sociologist Judy Singer in the 1990s, neurodiversity is a subset of biodiversity, a natural part of being human. It is estimated that 20% of the world's population are neurodivergent in some way (according to Genius Within, these 'neurominorities' include being autistic, having ADHD, Dyslexia, Dyspraxia/DCD, Dyscalculia, and/or Tourette's) and that 13.3% of self-employed people in the UK are registered disabled (Labour Force Survey, 2022). With 4.3m people self-employed in the UK (Francis-Devine et al., 2023), neurodivergent entrepreneurs comprise a significant proportion of small business owners who may be accessing Higher Education executive education offerings or business support, in addition to constituting a sizeable cohort of undergraduates in entrepreneurship classrooms. The various conditions captured under the neurodivergent umbrella term are accompanied with positive benefits in addition to challenges, as represented in the diagram below.

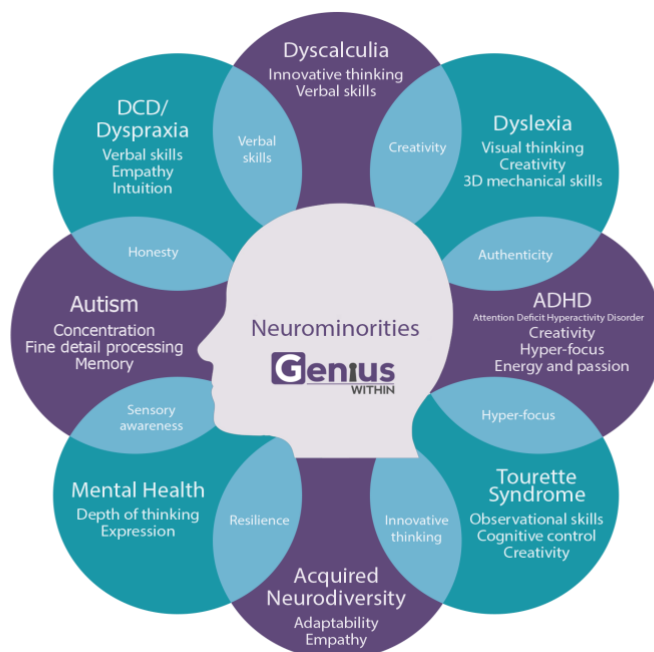
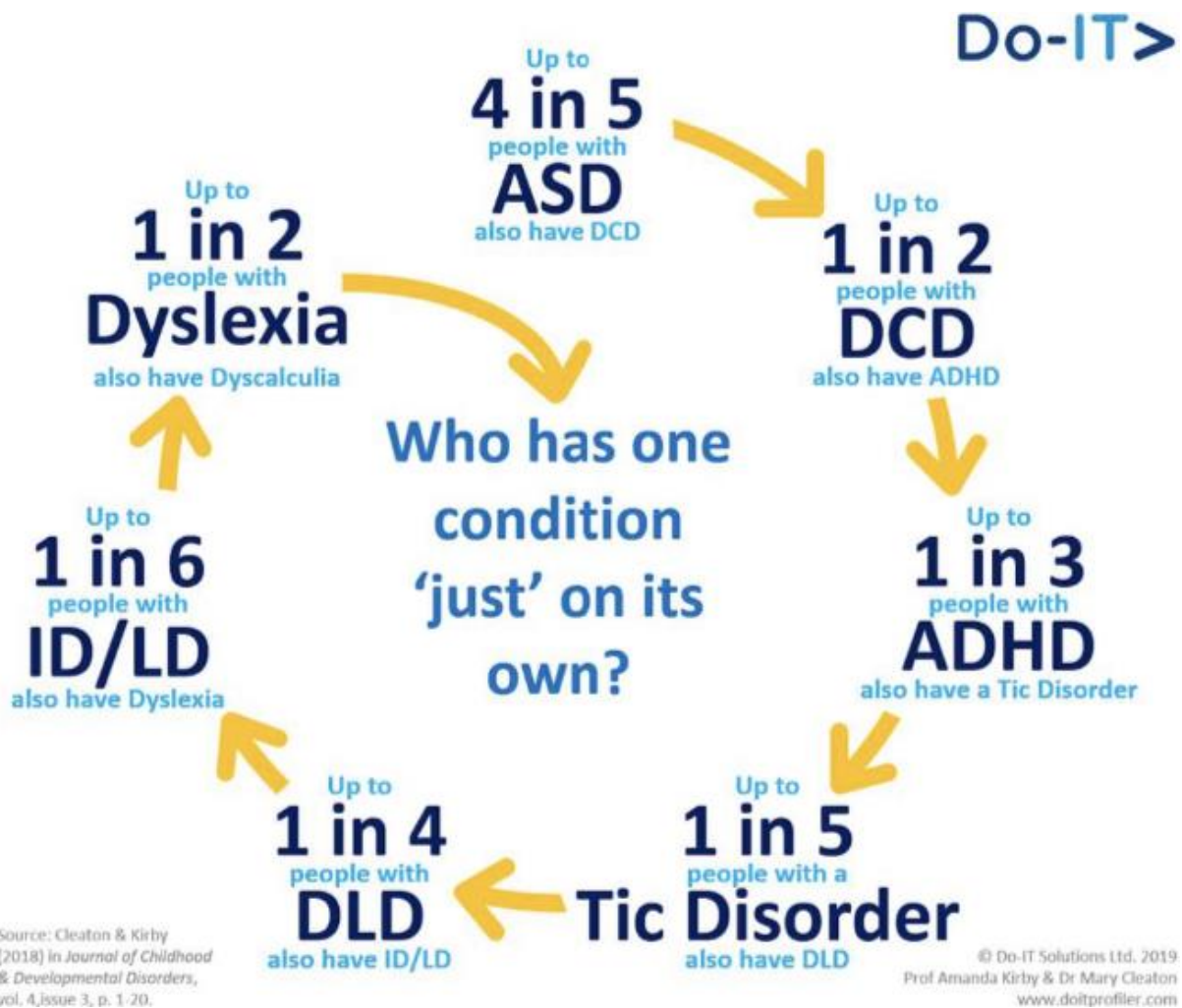


Figure 1: What is Neurodiversity? *Genius Within* (<https://geniuswithin.org/what-is-neurodiversity/>)

Individuals often do not have a singular neurodivergent condition but will have a cluster of conditions, for example:



Currently in our classrooms and training environments, neurodivergent (ND) entrepreneurs and students may be challenged and constrained by the physical environment e.g. large class groups or being in loud, noisy environments, or by the tasks set e.g. enforced socialisation and group work, tasks without clear direction, where assumptions are required or facts are not made explicit, or by teaching and learning resources and activities e.g. busy PowerPoint slides or a lack of visual learning aids or a lack of practical activities (Whewell and Tiplady, 2023).

Universities are becoming increasingly aware of the need to better provide for neurodivergent students, rethinking conformity and standardisation, and often engaging with student-led initiatives to better meet individual needs. We contend that enterprise and entrepreneurship educators have a particularly important role to play in creating inclusive learning environments given the reported attraction of self-employment and entrepreneurship to neurodivergent individuals. This creates both an exciting and

challenging environment in which to be an enterprise and entrepreneurship educator seeking to develop a nuanced approach that helps maximise success for all students, entrepreneurs and business owners.

Starting the Conversation

An interactive session was facilitated at the Enterprise Educators UK 2023 annual conference. The session was led by Mr Rob Edwards, a neurodivergent business owner and CEO of the Neurodiversity & Entrepreneurship Association, in conjunction with Dr Lorna Treanor, an Associate Professor of Entrepreneurship at Nottingham University Business School, an expert in inclusive entrepreneurship with over twenty years' teaching and training experience.

The interactive session included input from neurodivergent students and business owners in addition to enterprise educators who shared challenges, solutions and good practice examples. This document provides a basic introduction to neurodivergence before presenting the findings from this session which, it is hoped, may begin to inform enterprise educators in identifying how to structure service provision that is more inclusive but also, may serve to encourage wider input from across the enterprise and entrepreneurship educator ecosystem such that a more comprehensive good practice guide can be developed and shared. This conversation was structured around four key discussion points. Feedback is structured accordingly below:

What initiatives and good practice are you already using to help neurodivergent students succeed?

- A partnership approach internally with wider participation colleagues in the Institution.
- Role models – external speakers sharing their experiences about what self-employment is like.
- Tailored support – one initiative will not suit all ND people but for many, pre-engagement preparation support activities are useful e.g. individual support to prepare for groupwork or team challenges such as pitching in a Dragon's Den scenario.
- Support person – one-to-one support has proved most effective for students. Educators developing and working closely with the assigned support people can be really beneficial for ND students.
- Case studies – just as with guest entrepreneur speakers, case studies work well for all students as people relate to others' entrepreneurial journeys. Having case studies and role models who share their experiences as ND entrepreneurs may be particularly useful for ND students.

- Safe spaces/quiet rooms – these have proved really beneficial for students, affording them a quiet space to calm and refocus.
- A supportive organisational environment – knowing the university is a ND-friendly environment is extremely important. A genuine, holistic Institutional approach, wherein ND-specific initiatives are part of a larger EDI strategy to ensure an inclusive environment is welcomed by ND students (and staff!).

How can neurodivergent students benefit from different approaches and techniques to achieve success in enterprise and entrepreneurship?

- Traditional enterprise education activities and provision does not always play to ND (and many neurotypical) strengths, especially when many student interventions are focused on group presentations, Dragons’ Den pitching to panels (usually in front of other competing student entrepreneurs), and elevator pitches. This is particularly important when access to finance is focused on traditional pitching/presentations or perhaps on lengthy forms and documents that need completing.
- We tend to put students into groups which may disadvantage some ND students in terms of performance. Individual work, and different ways of pitching, need to be discussed.
- While most educators provide presentation skills training to students, many questioned whether alternative methods of ‘selling’ a business idea to a crowd needed to be explored. One example trialled was an investment conversation which was conducted with the individual or team in the absence of ‘competing’ peers.
- Not all (ND) students fit with the media portrayal of what an entrepreneur is, and neurodiversity can often come with a heightened reaction to perceived rejection. Whilst there is still a place for traditional enterprise education approaches, there is a need for a more nurturing and supportive environment and a variety of assessment approaches to facilitate success for all students.
- Following on from the benefit of pre-participation preparation activities, the question arose: Is there a need for pre-incubation support that sits alongside more traditional enterprise support? This may allow students and enterprise educators to experiment and determine approaches and techniques that may be more effective in supporting individual students.

Where are the challenges and concerns for enterprise educators?

There was widespread recognition that supporting effective and inclusive entrepreneurial education is a key contemporary challenge and attendees welcomed

the opportunity to discuss this topic. They reported that, despite the likelihood that at least one in five students are neurodivergent, there seem to be few resources available specific to enterprise education. Consequently, as enterprise educators, individuals often feel responsible for trying to identify effective solutions on their own; this can feel isolating and intimidating without access to a community of support. Specific, widespread concerns raised were fears of ‘getting it wrong’ and offering inappropriate and/or ineffective support; additionally, guidance about language and appropriate terminology would be very welcomed.

How can showcasing and celebrating neurodivergent business benefit a wider enterprise education environment that is truly inclusive for all?

- The importance of building a supportive community to allow ND students to shine was central to discussions throughout the session.
- Access to role models, mentors, teachers and coaches who understand neurodivergence could make a significant difference to ND student outcomes.
- Enterprise educators would appreciate appropriate support and training from employing institutions. They would also welcome appropriate teaching and learning resources such as case studies that celebrate ND business among other resources, so they can create inclusive enterprise education environments to engage and facilitate successful outcomes for all students.
- The comment ***“What works for ND students works for everyone”*** was the ‘key takeaway’ for many attendees and garnered widespread consensus.

Conclusion and Next Steps

This interactive session was the start of a conversation; this document represents a widening of that discussion. We now call upon the wider enterprise education community for their input. Please share your good practice, the teaching and learning resources that have worked for you and the useful techniques that have benefitted your ND students.

In this way, we hope to assist in the development of a suite of good practice resources to benefit colleagues and catalyse the delivery of effective, inclusive enterprise education for ND, and indeed all, students.

To provide your input and/or share resources, please contact:

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