Neurodiversity in Higher Education: Impact for students at GBS.

by

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List of Abbreviations:

ADHD – Attention Deficit Hyperactivity Disorder

ASD – Autism

BPS – British Psychological Society

DSM – Diagnostic and Statistical Manual

EDI – Equality Diversity and Inclusion

GBS – Global Banking School

HE – Higher Education

ND – Neurodivergence

NT – Neurotypical

PTSD – Post Traumatic Stress Disorder

UCL – University College London

UDL – Universal Design Language

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Abstract

According to a British Psychological Society report in 2022, "1 in 7 people in the UK is neurodivergent and that student numbers are at their highest level ever – with over 2.5 million students currently enrolled on higher education courses. The number of neurodivergent students is, therefore, likely to be significant. Nonetheless, traditional perspectives on neurodivergence – as a deficit and barrier to education – continue to cast a long shadow on learning and working in higher education".

GBS has over 500 students who are neurodivergent based on the records from the Specific Learning Differences Lead Coordinator.

Neurodiversity is the collective terminology that describes attention deficit hyperactivity disorder (ADHD), dyspraxia, dyslexia, Tourette syndrome, dyscalculia, and the autistic spectrum (Clouder et al., 2020).

Evidence from research suggests that every individual has their own unique neurodiverse qualities.

Under the Equality Act 2010, universities and colleges have a duty to ensure equality of opportunity for disabled students.

This paper examines the concept of Neurodiversity by creating awareness on the benefits for staff and students in Higher Education.

Additionally, recommendations on 'reasonable adjustments' which can make GBS a Neurodiversity friendly institution are discussed using pragmatic methods from UCL, Dyson Institute of Engineering and Technology UK and Relaxed and Compassionate Pedagogical approaches.

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Introduction:

Inadequate attention has been given to the concept of Neurodiversity in pedagogical literature on higher education, notwithstanding the growing numbers of students who are neurodivergent studying in universities worldwide (Bakker et al., 2019).

The growing number of students that have learning difficulties related to neurodiversity entering higher education (HE) creates a mutual and increasing challenge worldwide for heads of institution and teacher staff (Clouder et al., 2020).

"1 in 7 people in the UK is neurodivergent and that student numbers are at their highest level ever – with over 2.5 million students currently enrolled on higher education courses. The number of neurodivergent students is, therefore, likely to be significant. Nonetheless, traditional perspectives on neurodivergence – as a deficit and barrier to education – continue to cast a long shadow on learning and working in higher education (BPS, 2022)".

According to the British Psychological Society publication on Neurodiversity in January, 2024 "*Neurodiversity is a frequently confused term; we have been most informed by the definition from Dr Nick Walker, of **Neuroqueer**. Neurodiversity can be broadly considered to reflect three separate things. Neurodiversity itself is an observation of the variation across humanity of neurocognitive functioning and traits. The neurodiversity paradigm goes further, in highlighting the inherent value in this variation, noting the social and cultural construction of ideas of 'normal' and 'right' ways of functioning, and emphasising the power imbalances and potential for discrimination intrinsic to this*".

According to the Specific Learning Differences Lead Coordinator at GBS, we have over 500 students who have been identified as being neurodivergent, although the

numbers are higher. This is because the students can decide not to indicate that they are neurodivergent.

Hamilton and Pessy (2023) noted that the senior management teams of universities have a unique role in fostering neurodivergent student's learning experience and outcomes. Dwyer et al., (2022) stated the need to include neurodiversity as a variant component of equality, diversity and inclusion (EDI).

This paper examines the concept of Neurodiversity by creating awareness on the benefits for staff and students in Higher Education using evidence from research studies. Additionally, using practical recommendations on 'reasonable adjustments' from UCL and Dyson Institute of Engineering and Technology UK, these methods can be adopted by GBS to foster a Neurodiversity friendly institution for our students.

There is a need to raise awareness among staff to identify such students and point them to the appropriate department for support.

Figure 1: What works to reduce equality gaps for disabled students.

(Source: TASO report, 2023).

What is Neurodiversity?

Neurodiversity can be defined as collective terminology that describes attention deficit hyperactivity disorder (ADHD), dyspraxia, dyslexia, Tourette syndrome, dyscalculia, and the autistic spectrum (Clouder et al., 2020).

According to a report by Coventry University (2024) on the Enabling Students with Neurodiversity (ENTENDER), the composite terminology for pathologic conditions that are associated with Neurodiversity deficiencies in Dyspraxia, Dyslexia, Attention Deficit Hyperactivity Disorder, Dyscalculia, Autistic Spectrum and Tourette Syndrome is referred to as Neurodiversity. The report further indicated that persons with neurodiverse conditions are relegated and deprived both socially and economically, leading to low self-esteem, underperformance, little employment opportunities and dependency. Despite this issue, teachers can build capacity for inclusion in 90% of the cases.

The attitude of society to diversity in humans tends to be disadvantageous to neurodiversity hence there is a need to change the perception to advance the inclusion opportunities offered by neurodiversity.

The naturally occurring variability between people is defined as neurodiversity (UCL, 2023). The term neurodiversity describes the fact that that are distinct ways in which all human brains process information. From assimilating information in our environment to articulating the information in our brains.

According to Hamilton and Petty (2023), academics possess a unique opportunity to imbibe compassion within the teaching environments. The emphasis here is universal compassion, not just compassion for a specific minority.

The UCL publication on Teaching and Learning (2023) Definitions:

Neurodivergent

This is a comprehensive terminology that refers to a neurological system that manifests in ways which deviates from the 'normal' predominant standards in the society. It can be abbreviated as ND.

Neurodivergence can be autism or dyslexia if caused by genetic or intrinsic factors or can be a consequence of brain-altering experiences from trauma or epilepsy. It can be caused by a blend of the two.

Neurotypical

Neurotypical (NT) possess a character of neurocognitive functioning that is predominant in the societal definition of "normal". Most of the persons who make up the neurological majority are called neurotypical.

Multiply neurodivergent

A neurocognitive functioning in an individual that diverges in several approaches – for example, if a person is autistic, dyslexic, and epileptic – such individuals may prefer to be known as multiply neurodivergent.

Neurodiverse

When one or more individuals in a group differ considerably from others due to their neurocognitive functioning, the group is described as neurodiverse. This implies that in a collection of neurodiverse individuals, diverse neurocognitive characteristics are present.

Is neurodivergence a disability or a mental illness?

Figure 2: Celebrating neurodiversity in Higher Education

(Source: BPS, 2022).

According to a study by Princing (2022), "*Neurodivergence can be associated with disability and mental illness but not in all cases.*

Some people who are neurodivergent may also have a disability, or their neurodivergence may be disabling in certain circumstances, Estes says.

When thinking about how disability interacts with neurodivergence, considering how society inhibits disabled people is important, Harrington says.

"The traditional way of thinking about disability is a medical model that says it's inherent in the person, that they deviated from the 'ideal' person functioning," he says. "The social model of disability is that the disability is an interaction between a person and their environment: It occurs when there's a mismatch between what they can do and what they're expected to be able to do."

Many types of neurodivergence, such as autism and ADHD, are listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).

Neurodivergence is often different from mental health conditions, like anxiety or depression, because it doesn't appear suddenly in adulthood or after a pivotal experience. (There are exceptions, such as schizophrenia, which often begins in someone's 20s or 30s; along with treatment-resistant depression and Post Traumatic Stress Disorder - PTSD.)

Neurodivergent people can also be diagnosed with other mental health conditions. In fact, two of every three people with ADHD have another condition such as anxiety, depression or OCD, and autistic people are at higher risk for mental health conditions".

The law and regulation

"*Since 2001, universities and colleges have had a legal requirement to make 'reasonable adjustments' for disabled students. Under the Equality Act 2010, universities and colleges have a duty to ensure equality of opportunity for disabled students by:*

- *changing rules or practices*

- *altering or removing physical barriers*

- *providing support services or devices*".

The importance of neurodiversity and neurodivergence awareness

- We gain insight into acknowledging that everyone has unique needs, distinctive experiences, and reacts based on their exclusive knowledge of the world.

- We can create a more inclusive society and services.

- Demand amendments and promote social tolerance.

- Combat stigma, bias and discrimination.

- Emphasize the advantages neurodivergent persons give to workplaces, societies and education.

(Source: UCL, 2023).

The challenges confronting students in their academic writing

Adapting to a typical system of Academic English establishes an additional obstacle for many students especially those from diverse backgrounds, specific learning diversities, and students whose additional language is English. Researchers have begun to advocate for a greater tolerance of students from extensively differing linguistic and cultural backgrounds 'bringing with them different ways of ordering ideas, differing forms of expression and differing ways of putting English expressions together' (Turner, 2018).

Researchers have begun to campaign for more tolerance of students from extensively diverse linguistic and cultural affiliation as such students bring a wealth of ideas, diverse types of expression and different ways of expressing English coherently (Turner, 2018).

The complex nature of Neurodiversity.

According Nowicki, (2022), everyone is endowed with a mix of talents and difficulties can be a source of struggle thus we are all possess to certain extent neurodiverse qualities.

For instance, "I'm very detail orientated and thorough, but I struggle to engage with written tasks and am prone to procrastination". For others, the difference between the individual's strengths and weaknesses is more evident. This can be disabling, presenting as ADHD, Dyslexia, Dyscalculia which are neurodivergent conditions. The term 'Genius Within' describes individuals who have these conditions as 'neurominorities'. The progress into higher education is a critical period for

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neurominorities, since many of these persons have designed complex coping mechanisms which have concealed their conditions thus preventing diagnosis. These mechanisms may become defective when there is a need for independence and a new routine for some and for others their coping mechanisms will be progressive and effective without the individual actualising their full potential.

Challenges for HEIs:

- Disconnection with the neurodivergent needs of the students caused by poor levels of staff awareness.
- Inconsistency and rigid teaching and assessment methods.
- Difficulties arising from non- disclosure of learning difficulties on the part of the students.

**Benefits of understanding Neurodiversity in Higher Education**

According to a British Psychological Society report in 2022, Neurodivergent individuals have the tendency to access education as matured students who are possibly complementing a wide range of duties namely home, family and work life, coupled with anxiety on returning to an educational system after a long absence from studying.

Additionally, such individuals might have struggled with getting an education in the past leading to a low morale.

It is imperative to provide a fair and accommodating opportunity that promotes cultural paradigms and solid steps that enshrine acceptable adjustments for the students.

This type of environment should be created for staff and students onboarding thus facilitating acceptance, diversity and increased confidence especially with students who have had encountered discrimination.

Figure 3: The Overlapping Skills and Strengths of Neurodiversity
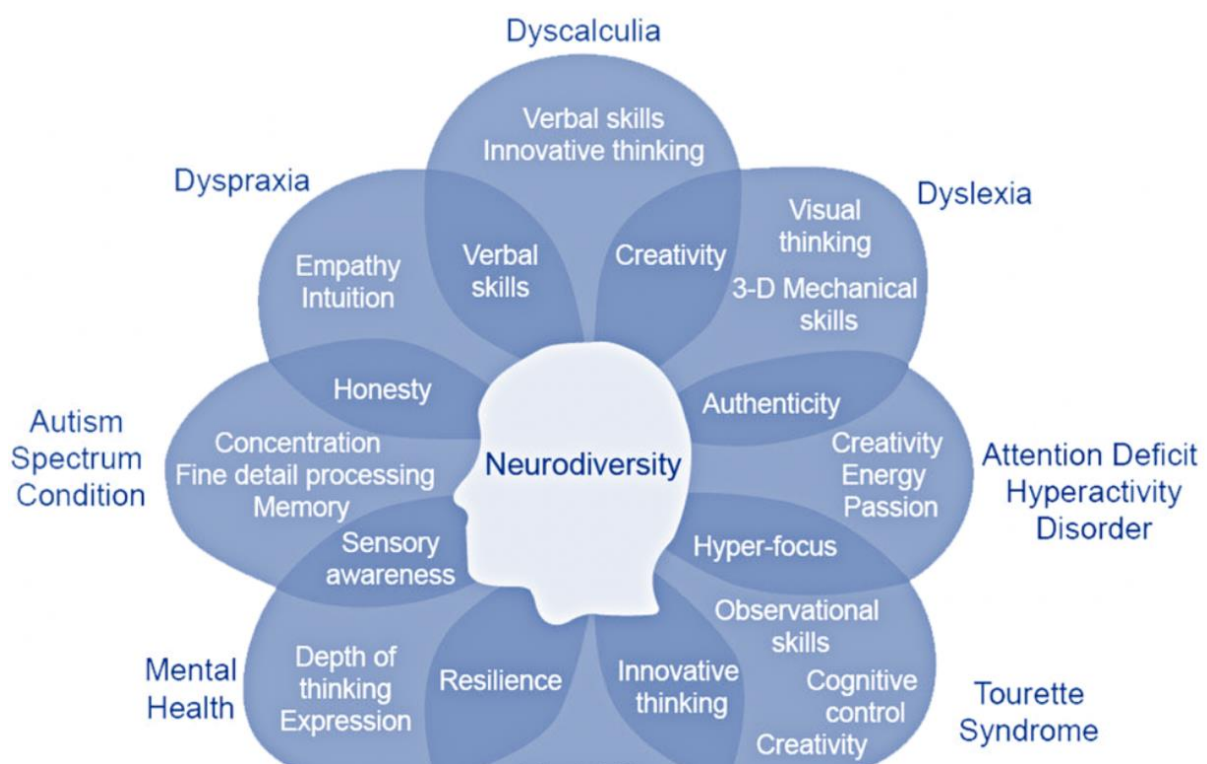
(Source: Adapted from Nancy Doyle, Johns Hopkins University, 2022)

Lessons from Dyson Institute of Engineering and Technology UK adapted from Nowicki, (2022):

- Provision of neurodiversity assessment by an external specialist for every student (Optional).
- This provides in-depth learning report that shows neurodivergent traits or information on the best learning method for the student.

- Employing standard procedures like assistive software, providing lecture notes in advance and lecture transcription.

- Ensuring that all academic and student support staff undergo neurodiversity training.

- Obtain the student's consent to share their neurodiversity reports with their lecturers, who in turn engages the student to discuss potential areas of strength, those requiring development and personalised support for learning.

Conclusion:

The issue of Neurodiversity is a contemporary and important part of teaching and learning in higher education. This is because of the stigma or bias that exists in the academic environment emanating from most of the current educational structures. Being different is not a disease, it is simply an understanding that everyone is unique. Higher educational institutions like GBS need to identify, recognise and become aware of these persons and their neurological characteristics. Embracing the Universal Design Learning (UDL), Assistive Technologies (AT) and creating an educational inclusive environment for our learners will not only promote access and participation in higher education, but this approach will also lead to the achievement of students learning outcomes and ultimately the OfS B3 matrix.

Recommendations:

Creating a neurodivergent friendly environment at GBS Adapted from BPS, (2022).

Advancing into higher education can create tension for neurotypical persons, conversely neurodiverse individuals find it very difficult if there is little or no support for their needs. There is also anxiety about disclosure, humiliation and labelling which cause significant disruption to accessing support and what is available for neurodiverse students.

Embedding relaxed pedagogical (RelaxPed) style which allows more break times in class, provision for students to stand up, move about and being considerate of specific needs of the individual student. This pedagogy acknowledges the fact that attendance

may not be regular and does not necessarily suggest that the student's work is not completing set tasks (Acton and Hujig, 2020).

- The understanding that some persons learn well and are more relaxed with their eyes closed or undertaking a different task, for instance crocheting which makes them aware of the present moment and prevents such individuals from zoning out, a condition which is prevalent among neurodivergent persons.

- The classroom environment should be neurodiversity friendly through lighting, sound and class arrangement.

- Designing a neurodiversity friendly module content, pace of teaching and meetings in the universities.

- Sympathetic feedback to demands for more information minimises anxiety and uncertainty.

- Engaging learners with neurodiverse-appropriate language for example the use of low-high functioning is obsolete.

- Providing support and training to staff for neurodivergent students.

- Having the understanding that are reasonable adjustments include extensions for deadlines for disabled students.

- Assessment reviews or provision of neurodivergent friendly options for assessments.

- Teaching materials should be designed to address the needs of neurodivergent persons for background colour, reducing large blocks of text, providing key words.

- Flexibility in the study patterns such as providing part-time or online courses.

- Encouraging precise, unambiguous information assignments, deadlines, and requirements as this will support students.

- Exemplars are very useful for neurodivergent individuals. Adopting simple words and actions to convey what needs to be done.

- Personalized, one-one support and/or a peer buddy will facilitate the student and staff ability to function in the academic environment.

Recommended Assessment approaches adapted from Clouder et al., 2020:

- Identifying students in Higher Education (HE) that are neurodiverse and reviewing students' experience from the Higher Education Providers (HEPs).

- Higher Educational Institutions (HEIs) response in providing adequate support services through staff awareness on neurodiversity.

- Adopting flexibility in teaching and assessment methods.

- Universal design Learning strategies which provide personalized customized support services.

- Assistive technologies (ATs) which promote learning by supporting the individual to carry out a task which the person cannot do or possess a challenge (JISC, 2021). For example, note taking substitutes and text to speech software.

- Providing a neurodiverse-friendly environment specifically made for the exclusive needs of the students.

- Providing an inclusive and adaptive learning condition devoid of the stigma of the student being branded as different.

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