UCD

Making
a Neurodiversity Friendly Campus

Foreword

Neurodiversity refers to natural variation in brain development and function. It encompasses a range of profiles such as Autism, Dyslexia, Dyspraxia and ADHD, among others. Across all of our organisations, many of the people we support tell us that, in their lived experience, they are often misunderstood and stigmatised, leading to exclusion and marginalisation in various aspects of life, including education.

The rigidity of traditional educational systems, with their emphasis on standardised testing, lectures, and written assignments, can create significant hurdles for those who think, learn, and communicate differently. But it doesn't have to be this way. With the right support and accommodations, everyone can thrive in university, bringing unique perspectives and personal talents that enrich the learning experience for all.

This report presents a comprehensive guide for UCD becoming more inclusive of neurodiversity and indeed becoming Ireland's if not the world's first 'Neurodiversity Friendly University'. It identifies key topics such as understanding neurodiversity, creating accessible learning and working environments, and providing and promoting neurodiversity awareness and acceptance.

It is important to note that a whole of campus approach is needed, given that many staff and students throughout the campus at all levels will be neurodivergent. The insight and expertise of both groups is needed to fully deliver on the recommendations in this report.

We hope that this report will serve as a valuable resource and pathway for educators, administrators, and policymakers seeking to create more inclusive and equitable educational institutions. By embracing neurodiversity, UCD can act as a beacon and can create inclusive environments that foster creativity, innovation, and academic excellence for all students, regardless of their neurological differences.

Ken Kilbride
CEO, ADHD Ireland

On behalf of ADHD Ireland, Aspire - Autism Spectrum Association of Ireland, Dyslexia Association of Ireland, Dyspraxia DCD Ireland

Acknowledgements

Funding Acknowledgments

Note on Terminology

Language in this area can be contentious, with no universally acceptable terms currently in use and limited research to guide practice. Preferences are evolving and vary across countries and cultures. We do not wish language to offend; the language in this space is evolving and there are varying views as to the most helpful language to describe neurodifference. Terms include but are not limited to neurodivergent and neurominority. The term neurotypical is disliked by some as it is seen to imply a 'norm' from which a minority 'diverge'. This is seen as a contradiction to the essence of the concept of neurodiversity which sees difference as the norm across humankind, and not characterised as belonging to or residing within one group in particular. It is hoped that it is understood that the language used throughout this document is used in good faith and for ease of reading to maintain consistency across the report. The terms used in this report are neurodivergence, neurodivergent, neurodiverse, neurodiversity and neurominority.

The use of participant quotes in Section 2: Stages 3, 4 and 5 illuminate the diverse experiences of staff and students in relation to neurodiversity and as such, we have chosen to present the quotes without edits or corrections to maintain their authenticity.

Contents

Executive Summary

The UCD EDI Neurodiversity Working Group was established in 2021 to better understand our campus climate in relation to neurodiversity, and to make recommendations that help make UCD a neurodiversity friendly environment for all in which to study and work.

UCD Seed Funding was obtained to establish a neurodiversity research team to carry out a comprehensive research programme which included the following:

1 Stage 1	**2** Stage 2	**3** Stage 3	**4** Stage 4	**5** Stage 5
Scoping Review	**Gap Analysis**	**Online staff and student questionnaire**	**Qualitative interviews with 37 participants**	**Sensory audit of the built and digital environment**
60 articles related to approaches to neurodiversity included in final review.	Review of relevant policies, procedures, and resources and focus group/ individual interviews with key staff.	745 responses of which 61% were students and 39% were staff.	Students (n=16) and staff (n=21).	15 audits of buildings, 9 of open spaces, 7 of digital spaces.

- The number of students seeking disability support from Access and Lifelong Learning (ALL) is increasing every year and is expected to continue trending upwards.

- Neurodivergent students were identified as the largest cohort of students who interact with UCD disability services as of 2023/2024.

- 81% and 77% of students and staff respectively reported personal experience of neurodiversity, with 68% of staff respondents indicating experience of neurodiversity in their work with colleagues or students. Significantly, 46% of survey respondents felt the term neurodiversity applied to them.

- The research project identified a disconnect between the range of initiatives in operation, and the level of awareness of these across the staff and student community.

- Positive factors identified in the study include widespread familiarity with the term neurodiversity, positive experiences of accessing supports, and evidence of existing and evolving support options for neurodiverse students in different contexts.

- Majority support amongst student and staff survey respondents for the provision of reasonable accommodations in relation to neurodiversity.

- Key challenges identified in the research included:

  » Fear of stigma and/or discrimination among staff and students.

  » Knowledge gaps on the part of staff.

  » Inaccessibility of some supports and services particularly related to the requirement for a diagnosis.

  » Difficulties with the physical and virtual environment which frequently included layout, signage, lighting and auditory experiences within the built environment, and navigation, layout, and accessibility of the digital environment.

- Whilst 46% of all survey respondents identified personally with the term neurodiversity, only 32% and 21% of all student and staff respondents respectively indicated direct experience of engaging with supports or services within UCD in relation to neurodiversity. This was irrespective of whether they identified with the term or not.

- Significant numbers of staff and student survey respondents who felt that the term neurodiversity applied to them had not disclosed this to someone at UCD. Those who had disclosed correlated the positivity or negativity of the disclosure experience as relating directly to recipient response as well as whether there was ease of access to supports and services following disclosure. Of those who had disclosed, 86% indicated a positive experience.

- The negative impact of neurodiversity on career progression for UCD staff as well as for students was highlighted. Reasons identified by respondents included recruitment and selection practices, culture and expectations within the University, and limited awareness of neurodiversity and access to accommodations.

- The requirement for flexible, easy-to-access supports which were individualised and reflected an understanding of neurodiversity was emphasised, highlighting the need for increased resources for any meaningful, sustainable University wide change relating to neurodiversity. Participants emphasised that sustainability was predicated on the adaptability of the system and scalability of the support.

- Support for staff and students at key transition points in entering and leaving University was also seen as crucial. Ongoing dialogue and effective communication about neurodiversity was seen as having a potentially huge positive impact including increasing awareness, reducing stigma, aiding normalisation, a sense of belonging, and driving authentic change.

- 31 recommendations were derived that reflect the key findings of the report considered in the context of the extant scientific literature. 18 of these are targeted at both staff and students, followed by 7 student-specific and 6 staff-specific recommendations. These recommendations identify how UCD can leverage and amplify existing supports, showcase good practice across the University, and provide a basis for addressing identified areas for development.

- The final section of the report showcases examples of innovation and good practice in relation to neurodiversity in UCD, with a student's account of their experience to exemplify the positive impact of increased awareness. These showcases include accounts from departments and staff across the University that demonstrate events or initiatives aimed at promoting a more inclusive environment.

Who we are

The UCD Equality, Diversity, and Inclusion (EDI) Neurodiversity Working Group, founded in 2021, was established to better understand UCD's campus climate in relation to neurodiversity and to make recommendations and progress actions that make UCD an equitable, supportive and neurodiversity friendly environment for all in which to study and work. The Neurodiversity Research Team was established to meet these objectives, with input from stakeholder advisors.

Neurodiversity Working Group-Current and Former Members

Blánaid Gavin	School of Medicine (Chair)
Tom Flanagan	School of Medicine
Timothy Frawley	School of Nursing, Midwifery and Health Systems
Jeffrey C. Glennon	School of Medicine
Lizbeth Goodman	School of Mechanical and Materials Engineering
Simon Gray	Student Advisers, UCD Arts and Humanities
Tobias Gunning	PhD Student/Access Leader
Eilis Hennessy	School of Psychology
Cliona Kelly	School of Law
Aishling Kennedy-Dalton	UCD Estate Services
Beth Kilkenny	College of Health and Agricultural Science
Tina Lowe	Campus Accessibility Officer, Access & Lifelong Learning
Eoin Mahon	Resourcing Unit, HR
Kylie McCardel	Disability Rights Campaigns Coordinator, UCD Students' Union
Alexa MacDermot	Student
Gregori Meakin	College of Arts and Humanities Office
Maria Mulholland	School of Veterinary Medicine
Lisa Murnane	School of History
Catriona Nicholls	Diploma Student/Access Leader
Cliódhna O'Connor	School of Psychology
Deirdre O'Connor	School of Agricultural and Food Science
Fiona O'Donnell	School of Psychology
Aisling O'Grady	Head of Services, Student Advisers
Eimear O'Reilly	Equality, Diversity, & Inclusion Unit
Sue Philpott	College of Engineering and Architecture Office
Kata Sitza	School of Computer Science
Danielle Smart	College of Social Science and Law
Julie Tonge	Access and Lifelong Learning, UCD

External Partners

Caoimhe O'Malley	Dyslexia Ireland
Ken Kilbride	ADHD Ireland
Linda Blake	Aspire- Autism Spectrum Association of Ireland
Sharon Lane	Dyspraxia/DCD Ireland

Neurodiversity Research Team

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Project Support	Beth Kilkenny	College of Health and Agricultural Science

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Stage 1 Scoping Review	**Leads**	**Team**
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	Sinem Uzar Ozcetin | School of Nursing, Midwifery and Health Systems	Blánaid Gavin | School of Medicine
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		Tracey McDonagh | School of Nursing, Midwifery and Health Systems

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Stage 3 Survey	**Lead**	**Team**
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		Aoife De Brun | School of Nursing, Midwifery and Health Systems
		Blánaid Gavin | School of Medicine
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		Aishling Kennedy Dalton | UCD Estates Services
		Beth Kilkenny | College of Health and Agricultural Science
		Eimear O'Reilly | UCD Equality, Diversity, and Inclusion Unit

Stage 4 Qualitative Interviews	**Lead**	**Team**
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		Blánaid Gavin | School of Medicine
		Beth Kilkenny | College of Health and Agricultural Science
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Section 1
Introduction & Background

Neurodiversity is a term coined in the 1990s that describes variation in human brain functions relating to sociability, learning, attention, and mood. The term challenges pathologising characterisations of neurodevelopmental variance with difference instead simply considered a naturally occurring variation. Neurodiversity encompasses variations such as Autism, Attention Deficit Hyperactivity Disorder (ADHD), Dyslexia and Developmental Coordination Disorder (DCD). Previous models focused primarily on individual deficits with the aim of 'deficit reduction' whereas the neurodiversity model attempts to understand the person as an individual located within a specific environmental context. Impairment is not denied, where and when it exists; importantly, however, harm is recognised as primarily a function of environmental context which may limit potential and propel difference to a state of deficit. The ethos underpinning this conceptualisation is to promote an understanding that many of the challenges relating to neurodiversity are societal. Despite increasing pockets of awareness and acceptance in universities, the focus on deficit is destined to prevail without a paradigm shift to create a supportive culture and accurate awareness of neurodiversity. At present, neurodivergent students are the largest cohort of students interacting with UCD Student Disability Service.
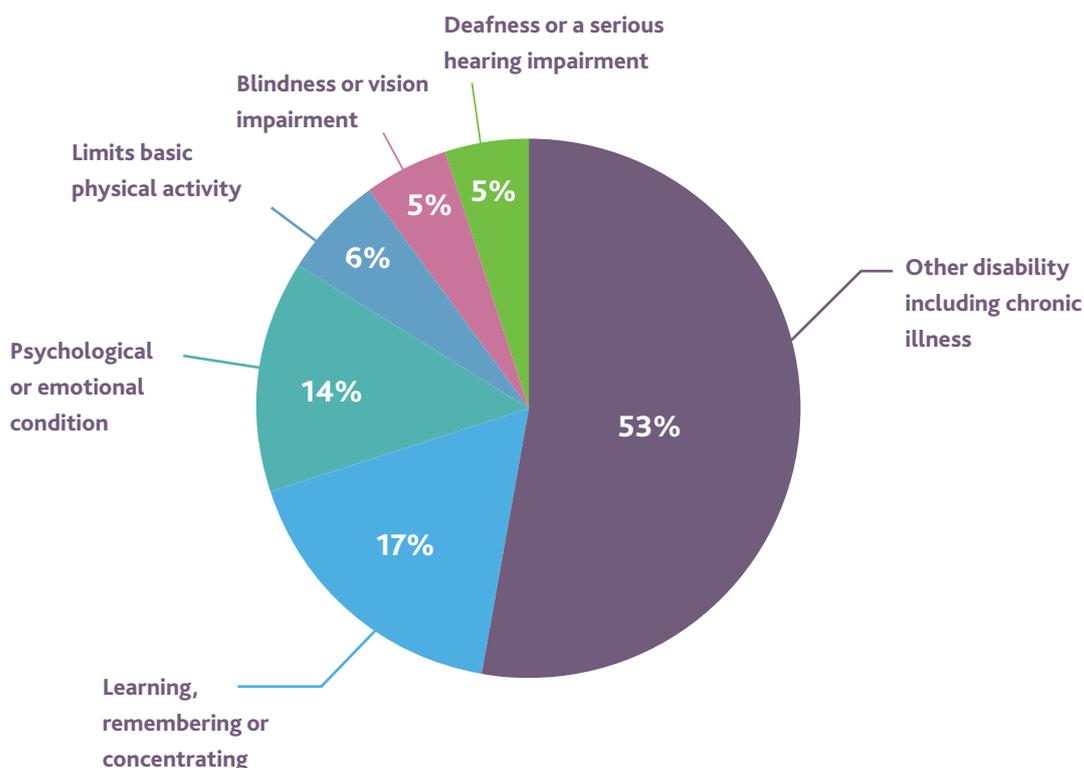
Fig. 1c Employees with a Disability

Figure 1a. shows the number of students who are receiving disability supports from UCD Access & Lifelong Learning (ALL) in the last 3 years, while Figure 1b. shows the current breakdown of neurodiverse conditions of students using the Student Disability Service led by ALL. These students have a formal diagnosis. Figures are increasing annually with this trend set to continue.

Year	Total
2023-24[1]	2690
2022-23	2571
2021-22	2286

Fig 1a

Disability	2023/24
ADHD/ADD	512
Autistic Spectrum Disorder	314
Dyspraxia	242
Specific Learning Difficulty	903

Fig 1b

Available data starkly demonstrates that neurodivergent university students have suboptimal educational experiences and outcomes as well as higher dropout rates. Furthermore, it is reasonable to assert that available data, limited as it is to those who 'access the system', is likely a stark underestimate of true prevalence.

[1] 2023/2024 to date as of 25.01.2024

Similarly, neurodivergent staff in universities experience difficulties that are unaddressed. This is thought to be influenced by the fact that the difficulties experienced by neurominorities are generally hidden insofar as there is no obvious recognisable physical manifestation. In addition, existing data suggests that 'hidden disabilities' are less understood, evoke more stigmatising attitudes and engender less helpful responses from peers/educational/staff support structures. In 2022/23, 7% of UCD staff identified as having a disability via the Employee Self Service. As shown in Figure 1c. the second largest group of respondents indicated 1). learning, remembering, or concentrating, or 2). psychological or emotional conditions. Many of these fall under the term neurodiversity. The largest group of respondents opted for 'other disability' which may also capture neurodivergent employees.

While many higher education institutions and universities have well-developed education support units and diversity policies, many of these approaches are generic, not necessarily suitable to neurodiversity, limited in their evidence base and require enhanced data collection mechanisms. The magnified challenges presented by the intersectional confluence of neurodiversity, gender, race and socioeconomic disadvantage remain largely unaddressed within the sector despite increasing acknowledgement of the negative impact of intersectionality with respect to neurodiversity.

Against this backdrop, the growing understanding of neurodiversity and intersectionality together with the acknowledged lack of equality in existing educational structures has inspired leading global universities to develop a 'neurodiversity friendly' University model wherein neurodiversity is embraced and understood.

In line with this, the Neurodiversity Research Team embarked on a University-wide study in 2022 to gather data to inform key actions to progress an evidence-informed 'neurodiversity friendly' model in UCD.

Making UCD a Neurodiversity Friendly Campus

Section 2
Methods

Aim

The aims of this study were to:

1. Explore awareness and attitudes of UCD students and staff to neurodiversity.

2. Explore availability of appropriate supports to students and staff.

3. Establish the extent to which UCD is a neurodiversity friendly campus.

4. Identify the improvements required to enhance UCD's neurodiversity programme.

Design

This was a mixed methods study with qualitative and quantitative components:

Stage 1	**Stage 2**	**Stage 3**	**Stage 4**	**Stage 5**
Scoping Review	**Gap Analysis**	**Survey**	**Qualitative interviews**	**Sensory audit**
To collate, describe and appraise the scientific literature relating to approaches to neurodiversity within Higher Education globally.	Mapping the journey of neurodivergent students and employees.	Survey-Study Specific Questionnaire (SSQ) of UCD staff and students knowledge, attitude to and experience of neurodiversity within UCD.	Semi-structured interviews with staff and students to explore experiences of neurodiversity within UCD.	Sensory audit of the physical and virtual environment.

Ethics

The study was granted ethical approval by the UCD Human Research Ethics Committee on 8th March 2022.

Section 3
Findings

Stage 1 | Scoping Review

Work Package Leads	Sinem Uzar Ozcetin & Joanna O'Neill
Work Package Team	Sandra Connell, Timmy Frawley, Blánaid Gavin, Tracey McDonagh, Corina Murphy

Introduction

This section of the report presents the findings of the scoping review that aimed to identify, describe, and appraise the effectiveness of approaches in supporting engagement of neurodiverse students in Higher Education. The review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Covidence, an online tool that streamlines the process of screening references and creating and populating data extraction forms was used. The search strategy, selection process and data extraction are outlined first, followed by a summary of the studies' key characteristics and main findings.

Methodology-Search Strategy

Six databases including Scopus, Cochrane, CENTRAL, EBSCOhost, CINAHL, PubMed and Web of Science were systematically searched using Medical Subject Headings (MeSH). Search terms and eligibility criteria are shown in Box 3.1a.

Search Terms	Eligibility Criteria
Neurodivers* OR Autism* OR Dyslexia* or Dyspraxia* or Dyscalculia* or Dysgraphia* or ADHD*) AND (student* OR staff OR academic* OR faculty*) AND (university* OR campus*	English language publications between January 2000 and August 2022.
	Approaches targeting students' engagement in university which examined impact and outcomes.
	Qualitative or Quantitative design excluding meta-analyses; systematic reviews; correlational, and case studies.
	Participants included higher education students, staff, and academics (>18 years old).

Box 3.1a

Study selection was independently conducted by members of the research team. Eligibility of the retrieved articles for inclusion was independently conducted by 2 researchers, with a third resolving conflicts until consensus was achieved. Data was then extracted from the final articles using a template designed by the lead researchers, see Box 3.1b. In line with the selection process, each article was subject to independent extraction by two researchers, with a third resolving discrepancies and finalising the data extracted.

Data for extraction

- Title
- Author
- Country
- Aim of study
- Outcome measures
- Study design
- Gender
- Neurodiversity
- Population
- Recruitment method
- Number of participants
- Description of approach
- Theoretical underpinning
- Conclusion

Box 3.1b

Studies from databases/registers (n = 22163)

EBSCOHost (n = 20050)
Web of Science (n = 1289)
PubMed (n = 415)
Scopus (n = 359
CINAHL (n = 50)

Studies from database/registers (n = 22163)

References from other sources (n = nil)
Citation searching (n=nil)
Grey literature (n = nil)

References removed (n = 16366)

Studies screened (n = 5797)

Studies excluded (n = 5414)

Studies sought for retrieval (n = 376)

Studies not retrieved (n = 0)

Studies addressed for eligibility (n = 376)

Studies excluded (n = 316)

Studies included in review (n = 60)

Included studies ongoing (n = 0)
Studies awaiting classification (n = 0)

Identification

Screening

Included

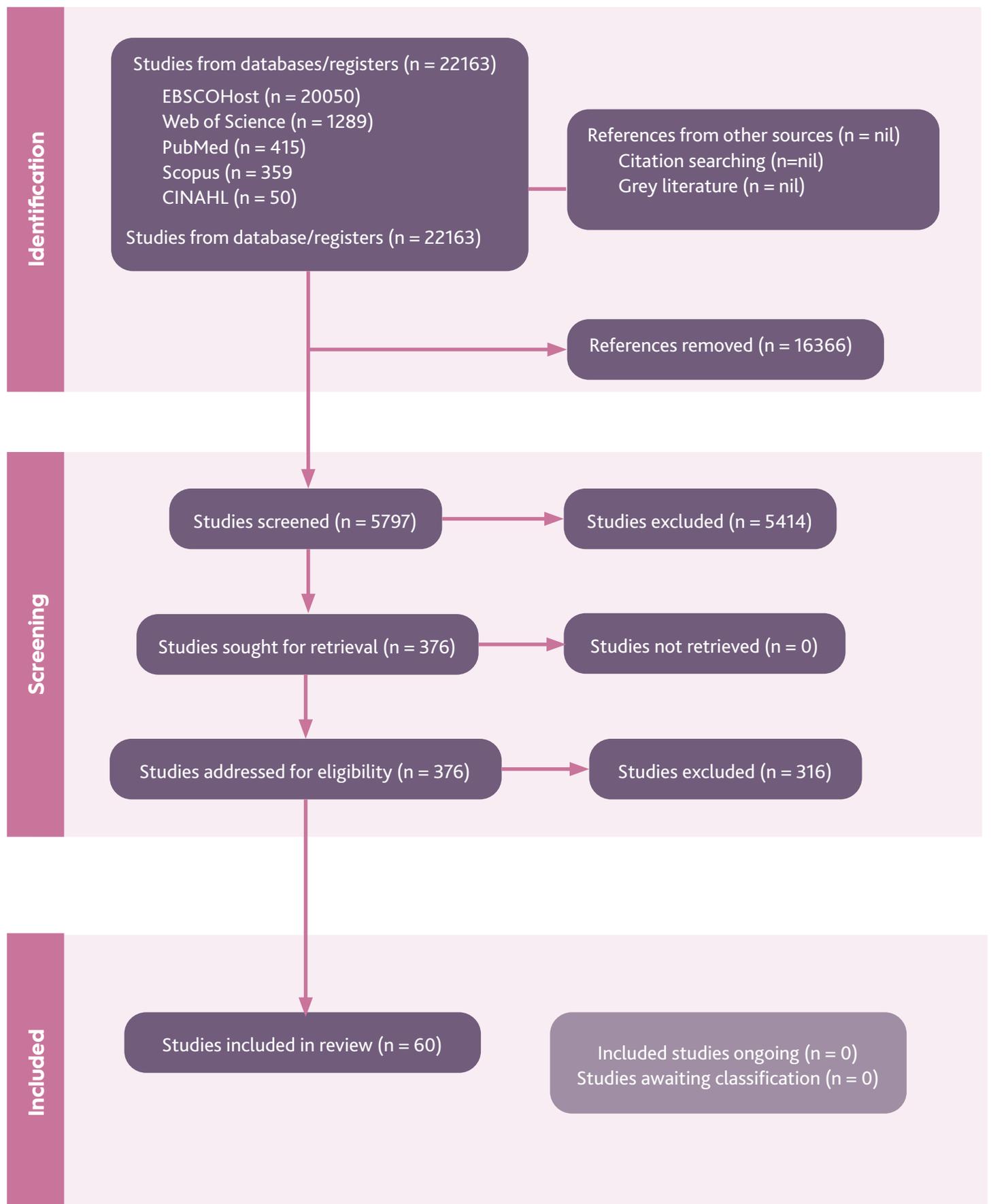**Fig 3.1.a**

<div style="background:#6b4a6b;color:white;display:inline-block;padding:2px 8px;">**Results**</div>

Study Characteristics

The search process yielded 22,163 publications. After exclusion of duplicates and screening, 60 articles were included in the final review (see Prisma Diagram in Figure 3.1a).

Quantitative Study Characteristics

A summary table in Appendix 1 provides an overview of each of the quantitative studies. 25 papers reporting quantitative findings were included, published between 2007-2022. Most of these studies were conducted in the USA (n=10), followed by Canada (n=4), the UK (n=3), Australia (n=2) and the Netherlands (n=2). Greece, Spain, and China each reported 1 study. A further study was completed across several countries: USA, UK, Canada, Japan, and Singapore (Waisman et al, 2022). Quantitative studies focussed predominately on Autism (n=12), one additional study by Jackson et al (2018) identified a focus on Asperger's Syndrome reflective of the DSM IV categorisation in effect at that time. The remaining quantitative studies focussed on ADHD (n=6) dyslexia (n=3) learning disabilities and ADHD (n=1), Dyslexia and/or DCD (n=1) and reading difficulties (n=1). A variety of designs were employed including surveys (n=5), non-randomised experimental design (n=3), non-randomised quasi experimental design (n=1) RCTs (n=3), pre-post-test evaluation (n= 3), component analysis (n=1) exploratory population study assessment (n=1), longitudinal design (n=2) and cross sectional (n=6). Students were the focus of the research for many of the quantitative studies (n=22), with only 3 studies involving University staff to consider their perspectives, engagement and experiences relating to their neurodiverse students. The number of participants ranged from 3 to 27, 643. Of note, only 1 (Waisman et al, 2022) of the 25 studies identified a participatory approach whereby the training was developed by autistic and non-autistic collaborators. 16 of the quantitative studies, to varying extents, focussed on a specific programme or intervention including mentoring/support programmes (n=6), coaching (n=1), specific strategy instruction/skills training (n=3) therapeutic interventions (CBT, DBT, MBCT) (n=3), computerised interventions (n=1), problem-based learning (n=1) and a staff training initiative (n=1). 2 studies focused on the perspectives, experiences, and insights of students with ASD while a third aimed to explore how confident students with dyslexia and/or DCD are with their study-related capabilities, usage of offered support and examination adjustments and determine the practices that students perceive to be helpful. Two further studies focussed on staff knowledge attitudes, and views (Stampoultzis et al 2015; Ryder and Norwich, 2019). Stampoultzis et al (2015) also examined teaching methods and accommodations used by teaching staff while Ryder and Norwich (2019) specifically considered lecturers perspectives of dyslexia, dyslexic students, and related disability provision. Three studies addressed issues related to academic success for neurodiverse students. A final study examined the differences between general and academic-specific psychological functioning problems in students with a history of reading difficulty (HRD) and without a history of reading difficulty (NRD).

Mixed Methods Study Characteristics

A summary table in Appendix 1 provides an overview of each of the mixed method studies. Nine papers using mixed methods published between 2005 and 2021 were included in the review. Most of the studies were conducted in the USA (n=4), with the UK, Canada, Australia, and France each conducting one study. One further study was conducted simultaneously across Finland, Spain, USA, and the UK. The studies focussed on a range of neurodiverse conditions including ADHD (n=2) ADHD and/or learning disabilities (n=1), Autism (n=2) Dyslexia (n=1), SpLD/Dyslexia (n=1) and reading difficulty (n=1), whilst one study identified 'all neurodevelopmental disorders' as the focus. The sample sizes ranged from 7 to 136. A variety of mixed methods designs were used including, mixed method quasi experimental design (n=2), mixed methods convergent design (n=1), mixed methods exploratory study (n=2), mixed methods utilising survey and thematic analysis (n=1) and a descriptive design that used quantitative and qualitative analysis. 1 study identified using mixed methods which included interviews and outcome measures including GPA and the Learning and Study Strategy Inventory. A final study identified a mixed methodology case study design. The population of focus was primarily students (n=7) followed by University staff (n=1) and staff and students (n=1). One study (Fabri et al,2020) employed a collaborative approach with members of the research team being autistic.

To varying degrees, the mixed methods studies considered; the impact of a newly developed model for students with ADHD and/or learning disabilities (n=1), experiences of autistic students (n=2) barriers and enablers for students with reading difficulties or dyslexia (n=2), and the use of specific interventions for students with ADHD (n=2). A further study looked at medical teaching staffs' opinion of all neurodevelopmental disorders. Finally, Mortimer (2013) aimed to explore attitudes and practices at each level of the institution to establish the extent to which Fullers Model might enable identification and elimination of disablist institutional practice and the development of a fully inclusive ethos.

Qualitative Study Characteristics

A summary table in Appendix 1 provides an overview of each of the qualitative studies. 26 papers reporting qualitative findings from 25 individual studies were selected for inclusion. All the included papers were published between 2006 and 2021 (n=26). The studies were conducted in the USA (n=10), the UK (n=6) Australia (n=3), Canada (n=2) with Belgium, New Zealand, Norway, and Sweden each contributing one study. One further study was conducted in the UK and Spain. The papers primarily studied Autism (n=12) followed by ADHD (n=6) and dyslexia (n=4). One study considered both Autism and ADHD, whilst two further studies identified the previously used diagnosis of Asperger's Syndrome that is now included under the umbrella of Autism within the DSM-V diagnostic system. A final study more broadly addressed the umbrella term of Learning Disability, including dyslexia, receptive communication disorder, expressive communication disorder and dyscalculia.

Most qualitative studies included in this scoping review were undertaken solely from the perspective of current or former students (n=22), followed by University staff and students (n=2) University staff, students and parents of students (n=1) and University staff (n=1). The sample sizes reported ranged from 2 to 57 participants. Designs included: grounded theory(n=4),critical realism(n=2),realist evaluation (n=1), interpretive phenomenological analysis (n=1),case study (n=1), autoethnography(n=1),Q methodology(n=1), qualitative survey design (n=1)qualitative comparative project (n=1), longitudinal ethnographic case study design (n=1), phenomenology(n=1), participant action research design (n=1) and participatory approach (n=1). 4 studies were qualitative research not otherwise specified, a constructive semi structured qualitative study (n=1), qualitative interview design (n=1), qualitative descriptive design (n=1), The remaining 2 studies were part of larger studies but only reported the qualitative findings in the paper.

	All studies (n=60)	**Quantitative** (n=25)	**Qualitative** (n=26)	**Mixed Method** (n=9)
Country	USA (n=24) UK (n=10), Canada (n=7), Australia (n=6) Netherlands (n=2) Multinational (n=3) China (n=1) Norway (n=1) France (n=1) Spain (n=1) New Zealand (n=1) Greece (n=1) Sweden (n=1) Belgium (n=1)	USA (n-10) Canada (n=4) UK (n=3) Australia (n=2) Netherlands (n=2) Greece (n=1) Spain (n=1) China (n=1) Multinational (n=1)	USA (n=10) UK (n=6) Australia (n=3) Canada (n=2) Sweden (n=1) Multinational (n=1) Norway (n=1) New Zealand (n=1) Belgium (n=1)	USA (n=4) Australia (n=1) France (n=1) Multinational (n=1) Canada (n=1) UK (n=1)
Year	2021 (n=14) 2017(n=8) 2018 (n=7) 2020(n=5) 2015 (n=4) 2022(n=4) 2014 (n=3) 2019 (n=2) 2016 (n=2) 2013 (n=2) 2009 (n=2) 2008 (n=2) 2005 (n=1) 2011 (n=1) 2012 (n=1) 2006 (n=1) 2007 (n=1)	2021 (n=5) 2018 (n=5) 2017 (n=4) 2022 (n=4) 2015 (n=2) 2020 (n=2) 2019 (n=1) 2016 (n=1) 2007 (n=1)	2021 (n=7) 2017(n=4) 2014 (n=3) 2018 (n=2) 2009 (n=2) 2020 (n=1) 2019 (n=1) 2016 (n=1) 2015 (n=1)) 2013 (n=1 2012 (n=1) 2008 (n= 1) 2006 (n=1)	2021 (n=2) 2020(n=2) 2015 (n=1) 2013 (n=1) 2011 (n=1) 2008 (n=1) 2005 (n=1)
Design		Cross sectional (n=6) Survey (n=5) non-randomised experimental design (n=3) RCTs (n=3) pre-post-test design (n=3) quasi experimental design (n=1) exploratory population study (n=1) longitudinal design (n=2) Component Analysis (n=1)	Grounded theory (n=4) qualitative design not otherwise specified (n=4) critical realism (n=2) realist evaluation (n=1) participatory action research (n=1) case study (n=1), Q methodology (n=1), phenomenology (n=1) participatory approach (n=1) autoethnography (n=1), ethnographic case study (n=1) qualitative survey design (n=1) interpretive phenomenological analysis (n=1), qualitative interview design (n=1), constructive semi structured (n=1) qualitative descriptive (n=1)qualitative comparative project (n=1) qualitative aspect of larger studies (n=2)	Quasi experimental (n=2) exploratory (n=2) convergent design (n=1), descriptive (n=1) case study (n=1)) survey and thematic analysis (n=1) mixed methods (n=1)
Neurodiversity focus	Autism (n=27) ADHD (n=14) Dyslexia (n=8 Aspergers Syndrome (n=3) Reading Difficulties (n=2) Learning Disabilities and/or ADHD (n=2)), Dyslexia and/or DCD (n=1), Autism and ADHD (n=1) Learning Disabilities (n=1) Neurodevelopmental Disorders (n=1)	Autism (n=12) ADHD (n=6) Aspergers Syndrome (n=1) Dyslexia (n=3) Learning Disabilities and ADHD (n=1) Dyslexia and/or DCD (n=1) Reading Difficulties (n=1)	Autism (n=12) ADHD (n=6) Dyslexia (n=4) Aspergers Syndrome (n=2) Autism & ADHD (n=1) (Learning Disabilities (n=1)	Autism (n=2) ADHD (n=2) Dyslexia (n=1) Neurodevelopmental disorders (n=1) Reading Difficulty (n=1) SpLD/Dyslexia (n=1) ADHD and/or Learning Disabilities (n=1)
Population	Students (n=51) University Staff (n=5) University Staff and Students (n=3) University staff students and parents of students (n=1)	Students (n=22) University Staff (n=3)	Students (n=22) University Staff (n=1) University Staff and Students (n=2) University staff, students and parents of students (n=1)	Students (n=7) University Staff (n=1) University staff and students (n=1)
Sample range	3-27, 643	3-27, 643	2-57	7-136

Table 3.1a

Summary Findings

Appendix 1 provides an overview of the aims and key characteristics of all 60 studies. Key characteristics that were identified included:

- The highest number of articles per year were published in 2021 (n=14).

- The USA conducted the highest number of studies per country (n=24).

- The most frequently studied condition was Autism (n=27).

- Research methods were diverse including qualitative (n=26) quantitative (n=25) and mixed methods (n=9).

- The study population was most frequently students only (n=51).

- Separate analysis of the qualitative papers resulted in identification of five superordinate themes including: (i) Perceived strengths and positive experiences; (ii) Perceived challenges and negative experiences; (iii) Notions of self, identity, psychological and emotional issues; (iv) Disclosure issues, stigma and labelling, isolation and exclusion, and; (v) Helpful supports and useful strategies.

- 21 papers studied specific approaches with varying levels of effectiveness for neurodiverse students. These included Peer Mentoring (n=7), Strategy Instruction/ Skills Training(n=4), ADHD Coaching(n=2), MBCT(n=1) CBT(n=1) DBT(n=1), Support Model(n=1), Computerised intervention(n=1), Computerised paced testing(n=1) PBL(n=1), and staff training(n=1). The remainder explored aspects of experiences and perceptions in relation to neurodiversity. Whilst the aims of the studies were varied, commonalities in the findings emerged that illustrate helpful or unhelpful approaches in universities. These included a role for:

  i.   Peer Mentoring and Social Support
  ii.   Therapeutic Interventions
  iii. Strategy Instruction and Skills Training
  iv.   Teacher Training, Knowledge, and Awareness
  v.   Academic Completion and Accommodations

The approaches identified above as potentially beneficial to students are discussed in more detail below.

i.   **Peer Mentoring and Social Support**

ii.   Therapeutic Interventions

iii.   Strategy Instruction and Skills Training

iv.   Teacher Training, Knowledge, and Awareness

v.   Academic Completion and Accommodations

....

The importance of social support was notable, with a lack of social support and social networks, pressure of social expectations, and limited social engagement and interaction contributing to a sense of loneliness, isolation, and marginalisation for neurodivergent participants

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Peer Mentoring and Social Support: Whilst specific aims were varied, Ames et al, (2016); Siew et al, (2017) and Rowe (2022) all found high levels of satisfaction with and effectiveness of peer mentoring in their studies focussed on autistic students. Trevisan et al (2021) further demonstrated positive changes in college adjustment including academic, social, and emotional adjustment, while increased positive social interactions were evident in Rowe (2022). Although Trevisan et al (2021) found no impact from peer mentoring on Grade Point Average (GPA), Rowe (2022) found increased GPA from 1st semester to end of first year. Siew et al (2017) also reported high levels of academic performance during the semester the students engaged in the peer mentoring programme, as well as an increase in perceived social supports and decreased general communication apprehension. Further to this, Fairchild et al (2020) found benefits in using incentives in addition to peer mentoring to increase social engagement, with the incentive program (entry into a raffle for a $100 gift) plus peer mentoring resulting in slightly higher average attendance than the peer mentor programme alone. Taneja-Johansson's (2021) study which explored facilitators and barriers to people with disabilities progressing to Higher Education highlighted the importance of availability of peer mentoring through disability services.

The importance of social support was notable, with a lack of social support and social networks, pressure of social expectations, and limited social engagement and interaction contributing to a sense of loneliness, isolation, and marginalisation for neurodivergent participants (Van Hees, Moyson and Roeyer (2015); Kim and Crowley (2021); Scott and Sedgewick (2021)). In addition to this, low mood, anxiety, and feelings of hopelessness were frequently reported, related to social and relational difficulties.

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Being able to make social connections within the class or through social interests, broadening one's social network and establishing a friend group was recognised as important in terms of connectiveness and adjustment in college life

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Participants in Briel and Evans Getzel's (2014) qualitative study on career planning experiences of autistic students identified the need for social skills training or information on making friends. Lei and Russell (2021) explored the extent to which the university experience (transitioning into, through and out of university) of autistic and typically developing students was shaped through self-determination (the human tendency towards independence, psychological growth, and well-being, grounded in meeting the basic needs of autonomy, competence, and relatedness (Deci and Ryan, 1985; Ryan and Deci, 2000; Wehmeyer, 2005; cited in Lei and Russell, 2021; p1263). With regards to relatedness and competency, autistic students noted finding for the first time the value of pushing oneself to try new things and connect with others, finding the social effort worth it for the ensuing outcomes. However, participants also reported that their social differences were sometimes misconstrued, leading to instances of social exclusion and difficulties establishing friendships. Challenges for participants in establishing and maintaining friends, and managing social situations were also noted in the studies (Briel and Evans Getzel, 2014; Knott and Taylor, 2014, Van Hees, Moyson and Roeyers, 2015; Vincent et al, 2017; Bolourian, Zeedyk and Blacher, 2018; Kim Crowley and Bottema-Beutel, 2021).

Whilst some studies identified the challenges for participants in establishing and maintaining friendships, others reported that participants found the Higher Education setting more conducive to making friends. Positive opportunities included meeting others with similar interests and mindsets, societies, and events. Certain structures including course organisation and accommodation provisions were also deemed helpful for meeting people and establishing friendships (Kim, Crowley and Bottema-Beutel, 2021; Scott and Sedgewick, 2021). Being able to make social connections within the class or through social interests, broadening one's social network and establishing a friend group was recognised as important in terms of connectiveness and adjustment in college life (Kim, Crowley and Bottema-Beutel, 2021). However Stack Cutler et al (2015) highlighted that students identified personal social ties i.e. friends, family, more often than institutional social ties in achieving their goals. Participants who reported individual support and/or validation from a teacher, partner, peers, mentor found that support very helpful (Fabri et al, 2020, Taneja-Johansson, 2021), while group support sessions were identified as useful (Perry and Franklin, 2006), as well as connection with others who share the same diagnosis in putting diagnosis into perspective (Hoben and Hesson, 2021). Balourian, Zeedyk and Blacher (2018); Kim, Crowley, and Bottema-Buetel (2021); and Lei and Russell (2021) identified participants perceived strengths as including proactiveness in seeking social engagement and friendship, building social skills, and finding the right social activities despite finding these activities challenging. Hillier et al (2018) evaluated a support group model to improve functional and psychological outcomes for autistic students. Improvements in self-esteem, lower anxiety, and reduced loneliness were noted, with no significant difference in subscales on social anxiety, depression, and academic distress from pre test to post test.

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Parker et al (2011) found that ADHD coaching assisted students in achieving greater self-regulation and a sense of wellbeing, as well as finding it effective, supportive, and beneficial to attaining their goals.

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Therapeutic Interventions: Three studies focussed on ADHD and utilised an RCT design with an adapted form of an established intervention: Dialectical Behaviour Therapy (DBT) (Fleming et al, 2015), Cognitive Behaviour Therapy (CBT) (Anastopoulos et al, 2012) and Mindfulness Based Cognitive Therapy (MBCT)(Gu, Xu and Xhu, 2018). Feasibility of the intervention for use with college students with ADHD was demonstrated in each study in comparison with control groups (DBT control group participants received skills handouts only, CBT control group had a 1 year delay to treatment and MBCT control group control group were offered MBCT at the end of the study). Benefits with the DBT skills intervention included greater improvement in executive functioning, quality of life and trends towards greater improvement in total symptoms of ADHD (Fleming et al 2015) and overall self-reported symptomatology, knowledge of ADHD, anxiety symptoms and use of behavioural strategies in Anastopoulos et al (2012) which trialled an adapted CBT programme. (Gu, Xu and Xhu, 2018) indicated lower anxiety in intervention group subjects with MBCT, although Fleming et al (2015) noted improvements in anxiety, depressive symptoms and GPA for participants in the DBT skills intervention did not exceed those in the control group. Of note, whilst participants who were in the 'immediate treatment group' were less likely to develop worsening depression and anxiety symptoms than the delayed treatment group for CBT, the authors were surprised at the lack of improvement in these domains (Anastopoulos et al, 2012).

Prevett et al (2017) investigated how and why ADHD coaching is beneficial with participants accessing 8 weeks of individualised weekly coaching sessions at a university-based clinic. Findings indicated a significant effect for the use of incentives/consequences on weekly task completion (development and completion of goals). Parker et al (2011) found that ADHD coaching assisted students in achieving greater self-regulation and a sense of wellbeing, as well as finding it effective, supportive, and beneficial to attaining their goals.

With regards to medication and ADHD, its usefulness was recognised including improvement in academic outcomes, increased focus and attention, as well as a positive impact on social interactions and motivation (Perry and Franklin, 2006; Lefler, Saccheti and Del Carlo, 2016; Bolourian, Zeedyk and Blacher, 2018). However, medication was also found less than helpful at times including loss of appetite, feeling like a 'zombie', not feeling like oneself, headaches and lack of sleep. Students also highlighted an understanding that it could not and did not 'cure' the disorder. (Perry and Franklin, 2006; Lefler, Saccheti and Del Carlo, 2016; Bolourian, Zeedyk and Blacher, 2018). In addition to these studies which focussed on students, Hoben and Hesson (2021), in their auto ethnographical study of two academics, found some positives around medication but weighed these against negative impacts. This included having more focus but an ensuing perception of less originality in their approach to work, worries regarding the impact on physical health conditions and also a sense that they should not need medication.

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Significant challenges were identified around managing large volumes of information, time management, being organised, making choices, balancing the demands of a heavy academic workload with student life and adapting to independent daily living

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Strategy Instruction & Skills Training: The development of organisational skills, time management, being accountable, and using simple strategies i.e. electronic tools, and checklists was highlighted as important in supporting students to foster a structured approach to their learning (Lefler, Saccheti and Del Carlo, 2016; Hoben and Hesson, 2021; Lei and Russell, 2021). Participants in Briel and Evans Getzel's (2014) qualitative study on the career planning experiences of autistic college students indicated a need for information on managing stress, decision making and goal setting. Significant challenges were identified around managing large volumes of information, time management, being organised, making choices, balancing the demands of a heavy academic workload with student life and adapting to independent daily living (Meaux, Green and Broussard, 2009; Lefler, Saccheti and Del Carlo, 2016; Cage and Howes, 2020).

Skills training including organisational, time management and planning skills were found to have potential in ameliorating ADHD symptomatology and academic impairment (La Count et al 2018) whilst Jackson et al (2018) demonstrated benefits of a writing strategy addressing planning, writing, editing and revision of written work for students with Asperger's Syndrome. The piloting of an individualised 1:1 specific strategy instruction with students with ADHD and/or LD demonstrated sustained improvements to grades dependent on student's independent use of the strategies and the instructor-student relationship (Allsopp, Minksoff and Bolt, 2005). Chiba and Lowe (2007) went beyond skills intervention to the provision of a course developed for students with learning disabilities and ADHD in transitioning and adjusting to the university environment. The course is tailored specifically to students with ADHD and learning disabilities, providing information about campus resources and promoting the application of effective study strategies. This included critical reading, time management, note taking and test taking strategies, as well as content on self-concept and identity, self-esteem, anxiety and stress management, student rights, accessing assistive technologies and results of psychoeducation assessments. The study found that the course could improve students understanding and acceptance of their learning difficulty, which were important factors for successful transition and adjustment to college. Peer support was also noted as an important aspect of the course.

Computerised interventions were also studied by Mejia et al (2017) who investigated the usefulness of a dashboard in identifying reading difficulties, learning styles and cognitive deficits. Findings indicated that this computerised intervention was able to assist students in creating awareness as well as facilitating reflection and self-regulation in the learning process, providing a tool to assist students with dyslexia or reading difficulties.

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The negative impact of perceived lack of awareness, knowledge and understanding among faculty, staff and other students around specific neurodiverse conditions was evident in several studies

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Teacher Training, Knowledge, and Awareness: Stampoltzis et al (2015) found that university lecturers hold mainly positive views of dyslexic students but may have low expectations for their progress. This study identified a need for training and development activities for faculty and a shift from a deficit model to a social model of dyslexia that emphasises the need for a more inclusive teaching environment. Ryder and Norwich (2019) explored UK lecturer's awareness of and attitudes towards dyslexia and dyslexic students. A high degree of positivity towards dyslexic students and academic accommodations was highlighted, but this was typically underpinned by inadequate up to date understanding of dyslexia. Attitudinal barriers of university staff, resulting in the experience of stigma and discrimination was also related to a lack of knowledge of educational requirements in Habib et als (2012) study on dyslexic students and virtual learning environments. Magnin, Ryff and Moulin (2021) also highlighted that medical teachers felt unprepared in the pedagogic management of students with neurodevelopmental conditions, and strongly indicated that training i.e. in knowledge of neurodevelopmental conditions and teaching adaptations/supports would be beneficial. The negative impact of perceived lack of awareness, knowledge and understanding among faculty, staff and other students around specific neurodiverse conditions was evident in several studies (Denhart 2008; Lefler, Saccheti and Del Carlo 2016; Cage and Howes 2020, Scott and Sedgewick 2021). This included a sense of having to work harder than others, the additional workload not being recognised, being misunderstood by faculty and a reluctance to ask for accommodations. Kim and Crowley (2021) in their qualitative study of autistic students experiences of Disability Support Offices (DSO) and supports available via DSO indicated further negative experiences related to ineffective communication between DSO and faculty regarding accommodations, lack of autism awareness of DSO staff and accessibility of the service itself. Conversely, more positive experiences were aligned with an appreciation of access to helpful accommodations including extended time and alternate exam locations. Scott and Sedgewick (2021) identified that having positive relationships with staff who understood autism and being treated as an individual helped participants to feel more at ease regarding seeking support in terms of their mental health. Cox et al (2021) reported revising policy, improving practice and culture within institutions and improving faculty training as important actions for improving outcomes for autistic students. Disability training for university staff and other students was also recommended by Perry and Franklin (2006).

One study included in the review implemented and evaluated an online 'Autism and Universal Design' training for Higher Education teaching staff that was coproduced by autistic and non-autistic collaborators. The training consisted of a module providing information related to autism and specific teaching strategies that could be employed, and a Universal Design (UD) module to develop the participants knowledge and application of UD principles and strategies (Waisman et al 2022). It was found to be associated with improvements in autism acceptance, autism understanding, and appreciation of the role of Universal Design in supporting autistic students.

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Challenging issues related to students' experiences of teaching and learning in general included lectures and modes of educational content delivery, large classes, timely availability of and quality of lecture notes, locating and attendance at lectures, noise levels in lectures, quality of recorded lectures and overly long didactive sessions.

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Challenging issues related to students' experiences of teaching and learning in general included lectures and modes of educational content delivery, large classes, timely availability of and quality of lecture notes, locating and attendance at lectures, noise levels in lectures, quality of recorded lectures and overly long didactive sessions. Smaller classes that typically called for in class participation and groupwork however were also difficult for some students (MacCullagh, Bosanquet and Badcock 2016; Casement, Carpio de los Pinos and Forrester Jones 2017; Cage and Howes 2020; Cox et al 2021; Scott and Sedgewick 2021). One study looked specifically at the use of Problem Based Learning (PBL) and sought to examine if higher ASD symptomatology was predictive of performance and the experience of problems or benefits in Problem Based Learning curricula (de Groot and Smeets, 2017). They found that the Autism Spectrum Quotient (AQ) score was not related to performance, but a higher score did predict experiencing more problems and less benefits of PBL. Problems included a higher ASD symptomology having the strongest impact on the collaborative learning element of PBL.

Visual and auditory distractions, the need for a quiet study space, taking notes while listening to lectures, chat terminology (in virtual learning environments, i.e.: abbreviations, acronyms and internet jargon) and the use of social media were all identified as challenging for dyslexic participants (Habib et al 2012; Rowan 2014; MacCullagh, Bosanquet and Badcock 2016). Reading online, accessing long and complex texts that had little relevance to their study topic and the costs and time associate with printing reading texts were also identified as problematic. Students in mixed online and on campus environments highlighted similar barriers including issues with quality of online lecture recordings and inconsistency across different modules and between different lecturers (Maurer-Smolder, Hunt and Parker, 2021), with a need for more observation of best practice in designing online teaching methods particularly emphasised. The continued practice of using high stakes written examinations for assessment without providing an appropriate accessible alternative was also identified by MacCullagh, Bosanquet and Badcock (2016). Maurer-Smolder, Hunt and Parker (2021) also noted that assessment practices need to be evaluated to ensure they are equitable. Rowan (2014) further identified inadequate course information and poor-quality course advice as factors that potentially negatively affect accessibility and course choice. Better understanding of neurodiversity and development and provision of effective and appropriate accommodations was deemed essential to improve students' university experiences (Cage and Howes 2020).

Finally, Mortimer (2013) went beyond exploring individual staff readiness to exploring the inclusiveness of a university by examining how much Fuller, Healy, Bradley, and Halls (2004) Stage Model of progress towards inclusiveness was reflected at an institutional level. This six-stage model demonstrates progress to being a genuinely inclusive institution and highlights that the transformation of the whole system can be delayed due to the propensity for different departments/individuals to be at different stages of progress. The study included focus groups to explore staff and student experiences, a review of policy documents, interviews and distribution of a questionnaire. The model was found to provide a clear and practical way to measure an institution's journey to inclusivity by identifying inconsistences in inclusive practice and thus allowing identified gaps to be addressed.

i.   Peer Mentoring and Social Support

ii.   Therapeutic Interventions

iii.   Strategy Instruction and Skills Training

iv.   Teacher Training, Knowledge, and Awareness

v.   **Academic Completion and Accommodations**

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Better understanding of neurodiversity and the development and provision of effective, individualised, and appropriate accommodations is also required to improve students' university experiences

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Academic Completion and Accommodations: Bakker (2022) reports that non-attendance at exams differentiates autistic students with problems in progression from other autistic students whose progression remains normal. Therefore, targeted interventions to support autistic students specifically at exam time are merited. Elgendi, Stewart and Deacon (2021) reported higher levels of academic anxiety, as opposed to generalised anxiety, and proposed that additional targeted supports were made available at exam time. Availing of accommodations including extra exam time or extra tuition was identified as a useful strategy to achieve success (Perry and Franklin, 2006). Better understanding of neurodiversity and the development and provision of effective, individualised, and appropriate accommodations is also required to improve students' university experiences (Cage and Howes, 2020; Fabri et al, 2020). Lack of knowledge of accommodations, self-expectation and pressure to complete, beliefs that accommodations were unsuitable, unwarranted or unfair in terms of advantage over others and the perception that applying for and achieving accommodations via disability services was troublesome, time consuming and not worthwhile are factors that constitute barriers for many students to accessing and availing of appropriate and rightful accommodations to support their journey through Higher Education (Perry and Franklin 2006; Denhart 2008; Meaux, Green and Broussard 2009; Lefler, Saccheti and Del Carlo 2016; Bolourian, Zeedyk and Blacher 2018, Taneja-Johansson 2021). Denhart (2008) found that problems with organising concepts for reading and writing difficulties related to oral and written comprehension, verbal communication difficulties and having a perceived different way of thinking from peers, as significantly impacting participants experiences of accessing and achieving success in Higher Education. Participants expressing reluctance in seeking academic accommodation related that decision to a fear of encountering stigma in the classroom, the exam hall and even being seen entering the disability services office (Lefler, Saccheti and Del Carlo 2016). Previous experiences of isolation associated with availing of accommodations and supports led to participants developing a fear of being treated differently, being misunderstood, and being isolated from peers (Perry and Franklin 2006).

Negative responses from staff and a perceived lack of autism awareness among faculty meant participants in a study by Scott and Sedgewick (2021) were also reluctant to seek supports and increasingly feared being stigmatised by staff. Accessing accommodations was identified as not being entirely straightforward in that it necessitated a formal diagnosis and the submission of documentary evidence, willingness to undergo this process was dependent on the meaning participants attached to their diagnosis. Campus disability services including the process of assessment for accommodations and the accommodations offered were found to be very good and helpful for those who chose to register with disability support (Perry and Franklin 2006; Lefler, Saccheti and Del Carlo 2016).

Lee, Osborne and Simoes (2008) compared the performance of students with a diagnosis of ADHD self-pacing through a computerised test versus students being paced automatically. In both groups, students were allowed an average of 90 seconds per question, self-pacing students were not forced to move to the next question and paced themselves using a clock on the screen, while automatically computer-paced students were forced to the next question once the allotted time had passed. Whilst the study found no meaningful difference in the test scores between cohorts, the findings highlighted the benefit of use of computerised testing in itself along with the environmental conditions as described by the participants.

Conclusion

This scoping review aimed to identify, describe, and appraise the effectiveness of approaches in supporting engagement of neurodiverse students in Higher Education. To this end, 60 articles were reviewed. Whilst the aims of these studies were diverse, a number of commonalities emerged and were discussed in the preceding sections. The potential positive impact of peer mentoring and social support was highlighted, as well as the usefulness of skills training in areas such as time management, writing strategies and organisational skills. A small number of articles also addressed the potential role of specific therapeutic interventions for students with ADHD, including MBCT, CBT, DBT and Coaching. The important role of individualised, tailored and accessible accommodations for neurodiverse students was evident from the literature and was further reinforced by studies that highlighted a need for education, training, knowledge and awareness raising for university staff with regard to neurodiversity.

However, it is evident from the literature that the evidence to inform practice is at this juncture very limited. There is very little high-quality research and even less replication of trials of specific interventions with similar methodology to allow cross comparisons of intervention components, resourcing implications and immediate and longer term outcomes. Moreover, the theoretical framework underpinning many of the therapeutic interventions is unclear as is the hypothesised mechanism of therapeutic effect. Furthermore, the lack of robust data to inform interventions directly relating to learning and teaching within this population is starkly apparent. Finally, this scoping review demonstrates that while intersectionality considerations are crucial with respect to neurodiversity, the existing data is inadequate to inform how best to address the amplified challenges caused by intersectional disadvantage such as gender, race, and socio-economic status. As such the clear limitations of the extant scientific literature to inform interventions in Higher Education relating to neurodiversity, as collated in this scoping review, together with the obvious needs of this cohort, point to a compelling need for further research to address this glaring lacuna. Optimal outcomes can only be achieved with standardised, feasible and costed interventions demonstrated to achieve efficacy across the full range of intersectional considerations in higher education settings globally. There is an immediate need to prioritise this research focus.

Stage

2 | Mapping the Journey of Neurodivergent Students and Employees

Authored by Eimear O'Reilly, UCD EDI

Work Package Lead	Eimear O'Reilly

This section reports on the outcome of the gap analysis that was performed with the aim of identifying existing areas of good practice as well as identifying opportunities to enhance UCD as a neurodiversity friendly campus. This approach was recommended by Neurodiversity Hub and a gap analysis template was explored. The gap analysis was accomplished by mapping the employee and student journey respectively against the University's existing supports and services, with specific consideration of the inclusiveness of current practices, relevant policy, and services in relation to neurodiversity. The journey of neurodivergent employees is presented first, along with recommendations resulting from the gap analysis, followed by the mapping of the journey of neurodivergent students and the recommendations that ensued.
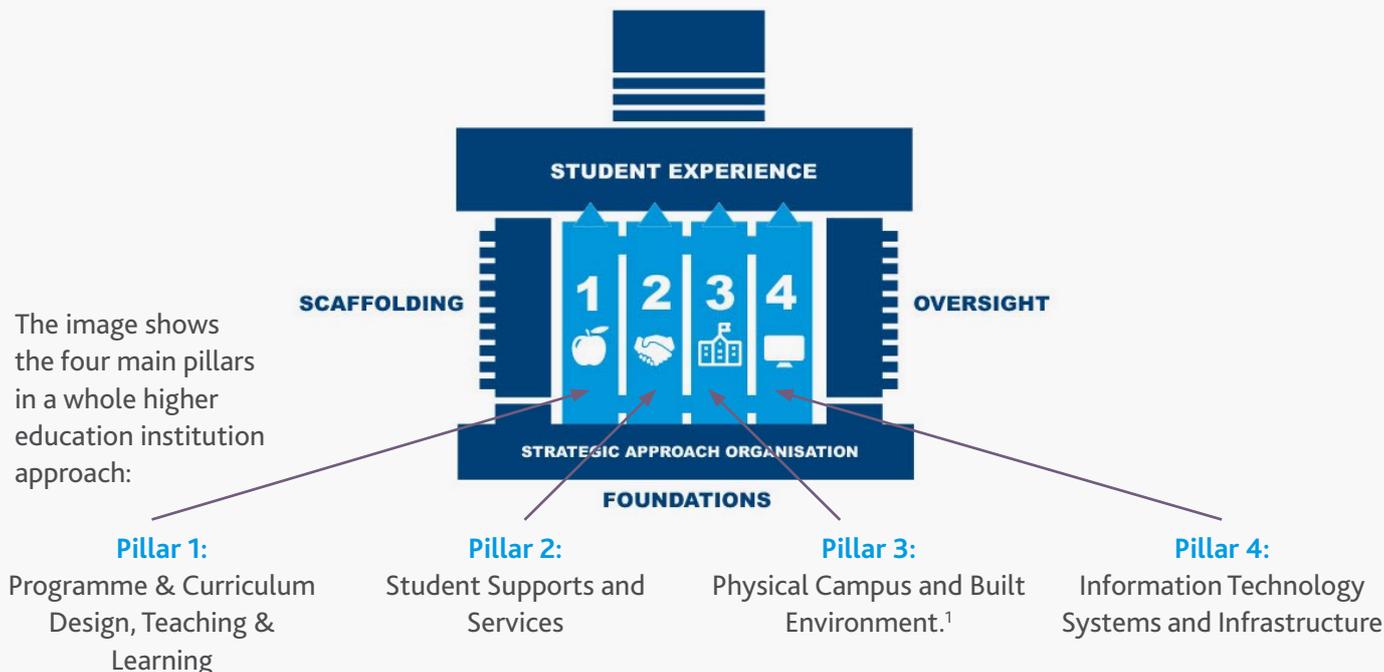
Methodology

The gap analysis consisted of four elements:

i.   Review of policies and processes, through the staff life-cycle by mapping the staff journey.

ii.   Review of policies, processes, and strategies through the student life-cycle by mapping the student journey.

iii.   Stakeholder interviews.

iv.   Targeted client-facing focus group with UCD employees.

Firstly, all relevant staff policies were collated and reviewed as were all processes pertinent to staff. Next the staff journey was mapped from recruitment and interviews through selection and onboarding, reasonable accommodations in employment, and career progression. The identified policies and processes were then considered through the prism of the various stages of the staff journey.

Next, all relevant student policies were collated and reviewed as were all processes pertinent to students. The student journey was mapped through utilisation of the four pillars that structure 'University for All' activities, namely:

The image shows the four main pillars in a whole higher education institution approach:

Pillar 1:
Programme & Curriculum Design, Teaching & Learning

Pillar 2:
Student Supports and Services

Pillar 3:
Physical Campus and Built Environment.[1]

Pillar 4:
Information Technology Systems and Infrastructure

[1] Pillar 3: Physical Campus and Built Environment is not addressed in this gap analysis due to the completion of a sensory audit in April 2023 as part of this study. Results regarding the built and digital environment can be found later in the report.

The third element of the gap analysis consisted of individual interviews with particular employees who were purposively chosen given their distinct roles and responsibilities relating to: student and staff accommodations, access, IT, and equality, diversity and inclusion.

The fourth and final element of the gap analysis was a two-hour focus group to gain a more in-depth understanding of the existing supports, services, and processes with which neurodivergent employees and students interact. Outputs from the Making UCD a Neurodiversity Campus Survey and the qualitative interviews were presented and areas for development were highlighted. An invitation was sent to all relevant personnel and thirty employees opted to participate. Participants were from:

- IT Services
- UCD Estates
- Schools from across five colleges in UCD
- Student Advisers
- UCD Registry
- Quality Assurance
- Resourcing
- HR Partners
- Access and Lifelong Learning
- UCD Global

There were 6 tables, each with a different thematic focus. Participants were invited to sit at one of the 6 tables connected to their department or role for discussion at the focus group. Tables were facilitated by representatives from the Neurodiversity Working Group and UCD EDI Unit. Questions were agreed in advance and based on areas for development in the initial review of gap analysis data. Participants were invited to discuss the following themes aligned to their department/role:

- Strategic objectives that support neurodiversity inclusion in your area.
- Existing supports/services that support neurodivergent employees and staff.
- Recommendations where gaps were identified aligned to departments.

These themes were explored with participants and collated by each table leader for further consideration in the context of the review of policies and practices.

Results

The collated results from the four stages of the gap analysis will be outlined below as follows: Firstly, the employee journey is mapped across;

i) recruitment, selection and onboarding

ii) neurodiversity friendly job interviews

iii) onboarding and induction

iv) accessing reasonable accommodations, and

v) career progression and development.

This is followed by the recommendations arising from this mapping exercise across the areas noted above. Next, the results of the student journey mapping are presented in the context of the aforementioned four pillars which structure the University for All activities. This section concludes with recommendations to enhance the student journey.

Fig 3.2a Percentage of UCD job applicants with a disability

Mapping the Journey of Employees

Recruitment, Selection and Onboarding

UCD Policy for Supporting the Employment of Persons with Disabilities was launched in December 2022. The term neurodiversity is included in the policy to promote awareness across the University and to highlight the responsibilities of managers and employees in supporting the inclusion of neurodivergent employees. Neurological traits fall under the disability equality ground in national and European legislation. Not all individuals with disabilities identify with this term; however, it is important to ensure that employees and students can access the supports they need and are protected under policy and legislation.

In 2023, over 7% of UCD employees identified as having a disability via the Employee Self Service with Employee Self-Service Screen. The highest group of respondents opted for 'other disability' which may capture neurodivergent employees. The second largest groups of respondents indicated that they had 1.) conditions related to learning, remembering, or concentrating or 2.) psychological or emotional conditions. Many of these challenges fall under the term neurodiversity. The employee data collected aligns to the legal definitions of disability in national legislations and does not provide detailed information about specific types of neurodiversity such as ADHD, Autism, Dyslexia.

3% of candidates applying for roles identified as having a disability during the UCD application process. A statutory target of employing a minimum of 3% of individuals with disabilities in the public sector is expected to increase to 6% in 2024. Figure 3.2a shows the percentage of UCD job applicants who disclosed a disability while completing an online job application via UCD E-Recruitment from 2016-2023.

Opportunities to request reasonable accommodations are highlighted to all job candidates in the UCD Guide to Reasonable Accommodations for Job Candidates and Employees. All job candidates are also invited to share if they require any reasonable accommodations as part of their invitation to interview.

Neurodiversity Friendly Job Interviews

In traditional style interviews, hiring decisions are often made based on social performance (Whelpey, May 2023). This can impact underrepresented groups including neurodivergent job candidates. Most UCD interviews are competency-based interviews and may include tasks. UCD provides a suite of training, videos and resources from inclusive recruitment and shortlisting to inclusive interview skills to ensure UCD recruitment panels are aligning to good practice and equality legislation. To raise greater awareness and inclusion, UCD reviewed its resources and information on neurodiversity for interview panels, hiring managers and job candidates. This ranged from arranging reasonable accommodations for interviews, to information for and communication with interviewees. A neurodiversity interview skills module has been added to the UCD inclusive recruitment suite to support UCD recruitment panels. UCD piloted the Willing Able Mentoring (WAM) programme in 2019[2]. The evaluation of the pilot 6 month paid WAM internship to UCD provided useful learnings. Further longer-term pilots could be explored to support access to entry level roles such as the 12-month paid programme for early career/ entry level role in the Departments of Agriculture, Food and Marine and Justice and the Houses of the Oireachtas Service in collaboration with The Public Appointments Service for Roma and Traveller communities in 2022. University for All Academic Internship programmes, an important feature in developing student employability, are now in operation across all six colleges.

[2] An initiative of AHEAD, WAM is a work placement programme which aims to promote access to the labour market for graduates with disabilities, and to build the capacity of employers to integrate disability into the mainstream workplace.

Onboarding and Induction

University orientation includes information on equality, diversity and inclusion and accessing reasonable accommodations. As part of orientation, a 'coffee and connect' event is held, and EDI groups and staff networks are invited to send representatives to meet with new employees. An email is sent to all new UCD employees with information about the reasonable accommodation process in UCD.

Local induction is included in the UCD Employment of Persons with Disability Policy highlighting managers' responsibilities to ensure that all employees in UCD are aware of the supports that can be accessed via UCD's reasonable accommodation process. This is further emphasised during UCD people managers' training on leading disability inclusive teams.

Accessing Reasonable Accommodations

UCD's reasonable accommodations process was developed through the ConnectAbility project which supports staff with disabilities in the workplace in relation to disclosing a disability and seeking a reasonable accommodation. This was an intervarsity project across seven universities nationally and funded by the European Social Fund 2007-2013 and the Equality Authority. This involved engaging with staff through a survey (10% response rate in UCD) and focus group, and an audit of policies and procedures.

UCD EDI provides advisory information on accessing reasonable accommodations. Managers implement agreed reasonable accommodations with the support of UCD HR Partners as required. HR Partners also support employees returning from sick leave who require reasonable accommodations. It is acknowledged that some employees may not access reasonable accommodations through ConnectAbility and that some supports may be accessed locally by neurodivergent employees through their managers. For example, reasonable accommodations such as those which relate to flexibility, scheduling, and the provision of some types of assistive technology which are accessible to all staff in UCD may be provided locally.

The following supports are accessible to all employees without a request for a formal diagnosis:

- UCD provides a wide range of career development training including: organisational skills; structure and time management; avoiding procrastination; IT skills and self-care.

- Ally for Brightspace and SensusAccess have been adopted as mainstream tools providing alternative formats to support employees' preferred learning media.

- Workshops and awareness events with internal and external subject matter experts on neurodiversity are organised on request e.g., Dyslexia Association Ireland workshop and AsIAm.

Career Development and Progression

Under the UCD Employment of Person with Disabilities Policy, people managers are responsible for supporting neurodivergent employees to thrive in their career and for facilitating their career development and progression. Neurodivergent individuals will have had mixed experiences in educational settings and transitioning to the workplace. Managers can play a significant role, taking a flexible, structured, and strengths-based approach to supporting neurodivergent employees. To support people managers, a half day in-person training module for UCD managers on leading disability inclusive teams was developed in 2022 in consultation with subject matter experts in both disability and neurodiversity. Awareness training for employees was also developed as part of this pilot. A neurodiversity training workshop for HR Partners and Senior Partners was held in November 2022. Feedback from the focus group suggested that there is an overall impression that there is a much greater focus on supporting neurodiverse students than staff. There was uncertainty about where neurodiversity fits regarding access to reasonable accommodations. In addition, participants expressed uncertainty as to whether those who disclose should be referred to this process. Participants' awareness varied as to how strategic objectives in their Unit support the inclusion of neurodivergent employees and students. Some participants identified the broad strategic objectives relating to UCD Equality, Diversity, & Inclusion Strategy and saw these as pointing to scope to include a neurodiversity framework. Other participants felt that they themselves together with staff in general, are unaware of how strategic objectives link to their Unit/School and/or how these might support and facilitate the inclusion of neurodiverse staff and students. For some areas, neurodiversity was referred to as a 'hot topic' and driven by national standards. In other areas there was little awareness or was not deemed as a key priority.

Focus group feedback, interviews with key stakeholders and review of policy and practices led to the development of the following recommendations.

Recommendations from Gap Analysis: Employees

- Enhance data collection mechanisms to develop tailored interventions and supports: Investigate if the Diversity Monitoring Tool on eRecruitment and Employee Self Service Screen can capture types of neurodiversity.

- Ensure information for job candidates is aligned to the principles of Universal Design.

- Review the 'Work at UCD' website regarding accessing reasonable accommodations, list, signpost and explain supports for neurodivergent candidates in this information.

- Use Silktide to review UCD Resourcing website to align with principles of Universal Design. Investigate tools which provide accessibility adjustments to websites and are inclusive of neurodivergent users.

- Explore neurodiversity inclusive and flexible recruitment approaches for neurodivergent job candidates aligned to international best practices.

- Review Public Appointment Service (PAS) and UCD Willing Able Mentoring Programme (WAM) case studies, explore opportunities to develop a programme for entry level roles for neurodivergent and disabled people in partnership with ALL.

- Review existing UCD supports for managers and employees that can be employed in a targeted manner for entry level roles.

- Utilise existing resources, training, mentorship supports as part of UCD's membership of external partnerships for disability and neurodiversity specific supports.

- Engage UCD Neurodiversity and Disability subject matter experts.

- Review UCD EDI Event Guidelines to ensure they are neurodiversity friendly

- Review UCD Orientation to ensure it is neurodiversity friendly. Invite members of Neurodiversity Subgroup and Staff network to connect with new hires during orientation.

- Provide neurodiversity friendly local induction guidance for managers.

- Evaluate neurodiversity inclusive information in recruitment, onboarding and local induction.

- Enhance communication and promotion of reasonable accommodation process and pathways for job candidates, employees, and managers.

- Raise awareness that reasonable accommodations are inclusive of neurodiversity.

- Continue to promote Reasonable Accommodation and Leading Disability Inclusive Training for people managers in UCD. Explore whether further neurodiversity training is required.

- Promote assistive technology which is accessible to all employees in UCD. Consider/explore guidance for managers and employees to normalise the provision of some types of assistive technology locally.

- Develop accompanying guidance for people managers on strengths-based approaches to managing neurodivergent employees, flexibility and awareness on available assistive technology.

- Promote existing supports and approaches for all staff that can be leveraged/have increased benefits for neurodivergent employees.

- Review mentorship programmes for neurodiversity inclusion.

- Work with People Organisation and Development to raise awareness about inclusive professional development for neurodivergent employees.

- Consider external support such as coaches and support workers.

- Promote supports such as, UMAAP, a 6-week online programme developed to help adults with ADHD develop strategies, by ADHD Ireland.

Mapping the Journey of Students

Neurodivergent students are the largest cohort of students with disabilities interacting with UCD Student Disability Service. University figures from 2023/2024 (as of January 2024) indicate that 2,690 students are in receipt of disability supports from ALL. Figure 3.2b provides a breakdown of neurodiverse conditions of students using the Student Disability Service led by ALL.

Disability	2023/24
ADHD/ADD	512
Autistic Spectrum Disorder	314
Dyspraxia	242
Specific Learning Difficulty	903

Fig 3.2b

As outlined previously, the structure of University for All activities focus on the four institutional pillars described below, as well as the foundation and scaffolding components to develop a whole-institution approach to mainstreaming and inclusion which support neurodivergent students. The student journey is thus considered against the backdrop of these pillars.

Pillar 1: Programme and Curriculum Design, Teaching & Learning

UCD Access and Lifelong Learning (ALL) provide a mainstreaming approach to supporting neurodivergent students, inclusive curriculum design, teaching and learning by providing expertise and resources, together with building capacity across the University to deliver a student learning experience that is inclusive of neurodiversity. UCD Teaching and Learning Unit (UCD T&L) has developed a new inclusive assessment model for students which is showcased in the good practice section of this report. Over the last five years UCD T&L has been developing and embedding an institutional approach to inclusive assessment at both programme and module level. This strengths-based approach focuses on removing some of the potential barriers faced by neurodivergent students by advocating fairness and flexibility in assessment approaches that will support all students.

ALL promotes a mainstreaming approach, so students do not have to seek supports. The Faculty Partnership Programme is designed to support and accelerate the implementation of Universal Design for Learning (UDL) throughout the University. Continued uptake of the Digital Badge in UDL for staff engaged in teaching and learning and a new online training, 'Introduction to Universal Design Badge', for all staff is supporting the campus to meet the needs of neurodiverse students. Over 400 colleagues in UCD have completed the UCD Badge successfully to date. UDL is also covered extensively in the T&L Certificate and Diploma Modules, with the UDL Badge being incorporated across specific modules as well.

Workshops for faculty on neurodivergent student participation and fact sheets are available on the ALL website.

The incorporation of UDL provides choices as to how to engage with and demonstrate learning. In particular, neurodiverse students benefit from choice of assessment. Beyond inclusive assessment, UDL provides students with continuity in how they access their class materials and quizzes and knowing where to find course information and timetables.

Pillar 2: Student Supports and Services

Orientation

UCD ALL provides a tailored orientation for students who engage with the Student Disability Support Service. The UCD ALL Welcome event is delivered before UCD's programme orientations and is designed to give attendees a head start with settling into UCD life, providing practical information, an opportunity to get to know other first year students, get used to the campus, find out what services are available and where to ask for help. Students are also introduced to their 'Access Leader', a current UCD student from the same or similar programme who also came through an access pathway. Peer mentors have been briefed on neurodiversity inclusion and UCD Estate Services held a workshop with UCD Residences on Universal Design and communications for staff with student facing roles.

A formal diagnosis is required to qualify for funding from the Fund for Students with Disabilities from the Department of Further and Higher Education, Research, Innovation and Science. A needs assessment is provided which is a legal requirement. The student meets with ALL for a discussion about supports. Engagement with the service typically peaks in advance of exams and after exams. The student is in charge of opting in for reasonable accommodations.

The number of students seeking disability support from Access & Lifelong Learning is increasing every year and this trend is expected to continue. Additional staff are required to ensure these students receive a needs assessment and appropriate ongoing support. At present, all students who have requested a needs assessment to date have received one along with appropriate ongoing support. The following supports are provided to students who have formally disclosed a neurodiverse condition and engaged in the needs assessment process:

- A needs assessment and ongoing support and advice from the Disability Team within Access & Lifelong Learning.

- ALL-led welcome programme before UCD orientation is available for students with diagnosis.

- Drop-in hours.

- Exam accommodations e.g., smaller exam venue, extra time of 10 minutes per hour, low-distraction exam venue, noise cancelling headphones. Classroom accommodations e.g., lecturers informed of student's condition if preferred, permission to record lectures, provision of lecture slides-the vast majority of lecturers provide these as part of Brightspace, Assistive Technology provision and training.

- In-person academic skills workshops.

- ALL Brightspace Module containing a collection of resources and workshops relating to all aspects of student life, accessible at any time. Topics covered include time management, note taking, avoiding procrastination and self-care.

- Workshops provided by external experts e.g., ADHD Ireland, Dyslexia Association of Ireland (in-person and recorded where possible).

- One-to-one Occupational Therapy Support (prioritised for first year students with a diagnosis of ASD). The Occupational Therapists engage in continuing professional development and keep up to date with the literature on adopting a neuro-affirmative approach and intervention strategies when working with neurodiverse students.

- Training provided to faculty and staff raising awareness of neurodiverse conditions and impact on college participation via workshops, fact-sheets, and regular emails.

- Workshops are also delivered to student cohorts on request e.g., Neurodiversity workshop delivered to students in the College of Science and a workshop for staff and faculty on supporting neurodiverse students.

- Support groups for students (previously facilitated an ADD/ADHD Support Group and currently planning a social support group for students with diagnosis of ASD).

- ALL's service seeks to provide some supports where feasible to students without diagnosis.

- A dyslexia screening service is available for all students regardless of formal diagnosis. Students who receive a positive screening are advised to seek a full assessment with an educational psychologist. The Student Welfare Fund has assisted students who have screened positive and for whom the cost of a formal assessment would be prohibitive. In addition, ALL now provide exam accommodations for those with a positive screening without a full diagnosis. Supports include alternative exam location and extra time.

- Ally for Brightspace and SensusAccess have been adopted as mainstream tools providing alternative formats to support students' preferred learning media.

**Video for students: How to arrange Disability Supports in UCD**

Work Placements

Access and Lifelong Learning help Schools in UCD to support neurodivergent students with accommodations that are required when undertaking placements. A successful model can be found in UCD Nursing, Midwifery and Health Systems which has a Disability Liaison Team in the School to organise a pre-placement visit and support the student to gain necessary accommodations for their work placement. ALL works with Schools and Colleges across UCD to support similar programmes.

## Transitioning from UCD into the Workforce

UCD Careers Network has a dedicated Careers Adviser to support students who are neurodivergent or have disabilities.

The P2P - Pathways to the Professions is focused on addressing barriers experienced by graduates at early career progression in the professions. Using the Law profession as a test bed, a model of best practice is being developed, which is applicable to a range of professions, including Archaeology, Architecture, Engineering, Medicine, Veterinary Medicine and Social Work.
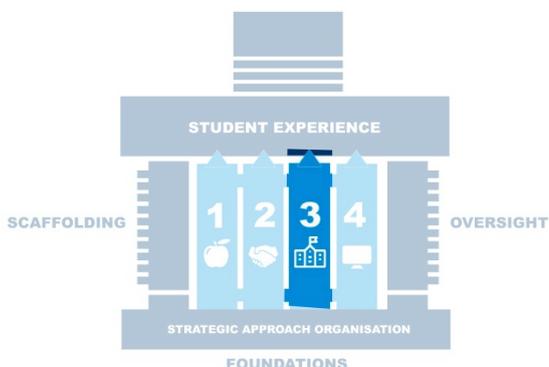
Pillar 3 Physical Campus and Built Environment

Pillar 3 on the physical campus and built environment is explored later through the sensory audit in Stage 5 of this report.
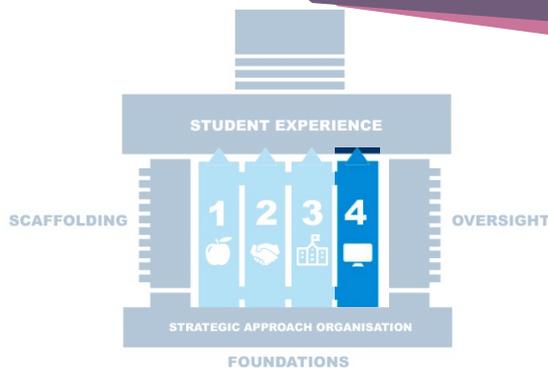
Pillar 4 Information Technology Systems and Infrastructure

Pillar 4 of UCD Access and Lifelong Learning Strategy 2020-2024 is to support the development of inclusive information technology systems and infrastructure. These systems incorporate the principles of Universal Design, ensuring that they can be readily accessed, understood, and used independently.

UCD IT Services have been undertaking a review of IT solutions aligned to the strategic vision and value of UCD. "An excellent user experience" is a guiding UCD principle in decision making about IT solutions. This principle includes a commitment to user-centred design, accessibility testing and on-going engagement with users to ensure an optimal user experience for users with accessibility needs.

Assistive technology can be of great benefit to neurodivergent students and employees alike. Students with neurodiverse conditions benefited from the provision of lecture recordings during the pandemic. Student feedback highlighted the importance of being able to engage with the lecture material as a study/revision aid. This also assisted students to engage with the material in whatever environment and time of day worked best for them.

UCD ALL offers a wide range of digital supports to all students from Ally for Brightspace, an accessibility tool allowing students to download in different formats, change grade line colours, immersive reader for students so they can read aloud materials. SensusAccess allows students to convert files into different formats, for example, where something can be listened to rather than read. Many of these assistive technologies are of benefit for all students and employees alike. By mainstreaming assistive technologies, the onus is removed from both students and employees, in particular those who are awaiting diagnosis. In addition, a universally-designed Brightspace template that can be used throughout the University is under development.

Recommendations from Gap Analysis: Students

- Increase resourcing to support neurodivergent students.

- Encourage accessibility training for Faculty and teaching staff.

- Embed neurodiversity in existing training programmes e.g. Teaching & Learning Certificate.

- Mainstream supports in UCD Orientation. Orientation in UCD could offer a pre-visit for neurodivergent students. Include a tour of the UCD Library for neurodivergent students.

- Address mis-information about required documentation, nature of supports, needs assessment process.

- Develop student led UCD society for neurodivergent students.

- Provide lecture recordings: students found this really beneficial as a study aid.

- Review Career Guidance Supports- facilitate career advisers run events for access students to support career planning.

- Module coordinators training regarding supports for neurodiversity students.

- Promote new Universal Design badge for staff. Mainstream training into school and college meetings.

- Develop visual promotions for training and reasonable accommodations.

- Continue development and promotion of sensory spaces.

- Promote sensory spaces via UCD Estates Interactive Map, EDI Map and via orientation for students and employees.

- Review design of spaces-lighting, heating, acoustics.

- Enhance signage and maps online/physical.

- Explore further research on sensory and quiet spaces to meet diverse needs. e.g. sensory pods are expensive and there is a lack of evidence as to their effectiveness. It is important that any developments are founded on the understanding that no one size fits all. There is a need for a range of options on campus to suit a range of preferences.

- Review procurement requirements in tenders for IT systems. Include neurodiversity and EDI in the assessment for each application by the owners.

- Provide Training for IT Services on accessibility requirements.

- Provide increased opportunities for neurodivergent end users and experts to work together with IT Services. Harness expertise within University with language and visual expertise relating to accessibility to co-create more accessible systems.

- Explore ways to reduce time constraints which force a focus on functionality/turnaround time at the cost of accessibility.

- Review all systems/web materials for accessibility and design infographics and workflow systems.

- Invest in ways to have adequate systems to safely invigilate virtual exams as higher exam results were noted and/or more tolerable exam experience (at home, comfortable etc) were reported by some students during Covid.

- Engage with neurodivergent staff and students when developing forms. Online improvements e.g., pre-populated forms.

- Promotion of digital accessibility and Universal Design training.Develop principles and checklist to ensure accessibility and universal design.

Stage 3 | Survey

Work Package Lead	Timmy Frawley
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Figure 3.3a

Introduction

This section presents the results of a University-wide survey which utilised a Study Specific Questionnaire (SSQ) designed to explore the knowledge, attitudes, and experiences of UCD students and staff relating to neurodiversity. The results for students and staff are considered as a whole rather than separately (see Figure 3.3a). This approach was chosen to align with the ethos of the neurodiversity paradigm which considers that all the coexisting, interdependent elements of a system in combination serve to create the campus climate. To be 'neurodiversity friendly', the entire system must be considered as a whole. Where possible, we have indicated whether responses and/or illustrative quotes are from staff or students. An overview of the demographics of survey respondents is presented in the context of their awareness and knowledge of neurodiversity, followed by respondents' experiences of disclosure and services and supports, as well as attitudes towards reasonable accommodations in relation to neurodiversity. Perception of the impact of neurodiversity on career progression for students and staff is then explored, before concluding the section with respondents' views on what the University is doing well, and changes which could be made to develop UCD's neurodiversity friendly climate. Questions relating to the built and digital environment are considered with the sensory audit in Section 2: Stage 5 of the report.

Methodology

The SSQ was developed based on existing questionnaires designed to explore knowledge, attitudes and experiences relating to neurodevelopmental difference, in addition to key issues identified in the existing scientific literature together with areas of priority identified by stakeholders. In line with standard questionnaire design methodology, the SSQ was shared with all relevant stakeholders for feedback. It was also piloted with individuals purposively selected to ensure a variety of neurodivergent perspectives were included. Based on stakeholder and pilot group suggestions, the SSQ was redrafted and recirculated. The finalised SSQ took 10 minutes to complete and included 20 (students) & 23 (staff) questions across two sections exploring knowledge, attitudes and experiences relating to neurodiversity in UCD. Demographic and awareness sections were the same for students and staff. The remaining questions were filtered by designation as staff or student. All participants were asked to identify what they thought the University was doing well in relation to neurodiversity, and for any suggestions on how to the enhance the University as a neurodiversity friendly campus.

The survey was promoted online to UCD staff and students for a period of 3 weeks in late January/early February 2023 via:

- Staff and student ezines.

- Infohub.

- Screens distributed around campus.

- University social media i.e., UCDSU Twitter, UCD_EDI Twitter.

- Project team members at a stand in the student village over the course of 4 days, with the survey link and QR code.

- EDI school representatives distributed via school email communications.

The responses were exported from Qualtrics into Statistical Package for the Social Sciences (SPSS) to complete descriptive statistical analyses. During the data cleaning process responses to open text questions were extracted for separate qualitative analysis.

Results

Demographics

745 responses were included for analysis, the majority of which were from students (61%) the remainder being staff (39%).[3] Table 3.3a provides a further breakdown of this based on designated role in the University, followed by Tables 3.3b and 3.3c indicating which college or department respondents were linked with. The most represented ethnicity was White Irish (65%), the most frequent age range was the 18-24 category (49%), and the majority of respondents were female (63%). Figure 3.3b, along with Table 3.3d provide further detail of these basic demographics on survey respondents. Tables 3.3e and 3.3f provides a breakdown of selected demographics according to designated role.

Table 3.3a Respondent Role in University	
Staff	21%
Faculty	15%
Technical	2%
Funded Research Contracts	1%
Student-undergraduate	49%
Student-postgraduate	12%

[3] It should be acknowledged that the response rate while in keeping with surveys of its sort is low and may not be generalisable. The high percentage of respondents who identify with the term neurodiversity may suggest a non-representative sample.

Staff	
Table 3.3b In which part of UCD do you work?	
UCD College of Arts and Humanities	4%
UCD College of Business	3%
UCD College of Engineering and Architecture	11%
UCD College of Health and Agriculture	21%
UCD College of Social Sciences and Law	12%
UCD College of Science	32%
Academic Affairs (Library, IT Services, Registry, other areas of Academic Affairs.	10%
Finance	1%
Human Resources, Safety & Insurance, Legal	2%
Research and Innovation	2%
Global Engagement	1%
President, Reports and VPs not listed above.	1%

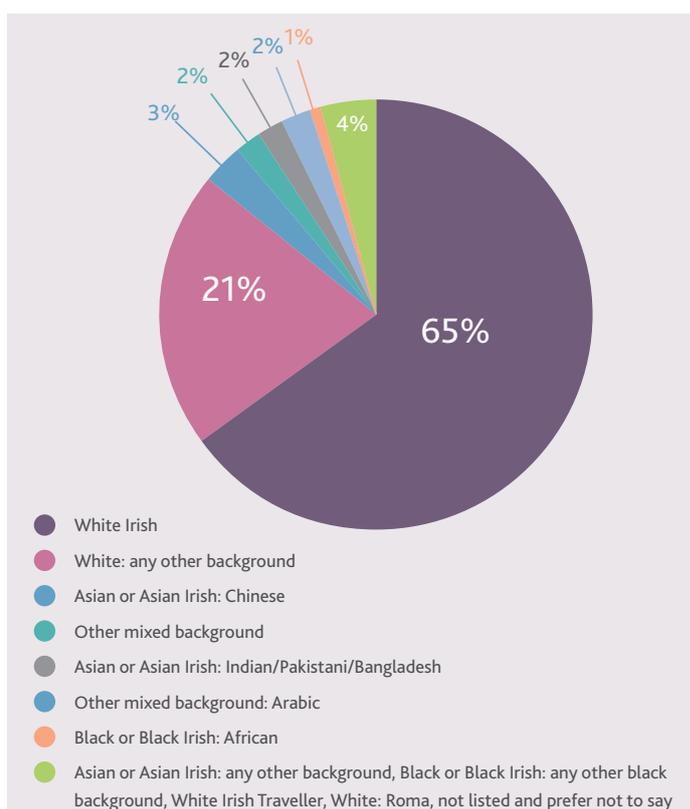| Student	
Table 3.3c Which college are you a part of?	
UCD College of Arts and Humanities	13%
UCD College of Business	2%
UCD College of Engineering and Architecture	13%
UCD College of Health and Agricultural Sciences	19%
UCD College of Social Sciences and Law	17%
UCD College of Science	36%

- White Irish
- White: any other background
- Asian or Asian Irish: Chinese
- Other mixed background
- Asian or Asian Irish: Indian/Pakistani/Bangladesh
- Other mixed background: Arabic
- Black or Black Irish: African
- Asian or Asian Irish: any other background, Black or Black Irish: any other black background, White Irish Traveller, White: Roma, not listed and prefer not to say

Figure 3.3b Survey respondent ethnicity/cultural background

Table 3.3d What is your gender?

Female	63%
Male	27%
Non-binary	7%
Self-declare	0.9%
Prefer not to say	2.6%

Table 3.3e University Role & Gender

What is your gender?	Female	Male	Non-binary	Self-declare	Prefer not to say
Staff	75%	20%	3%	0.5%	1.5%
Student-undergraduate	58%	29%	9%	0.4%	4%
Student-postgraduate	66%	24%	6%	3%	2%
Faculty	55%	41%	1%	1%	2%
Technical	65%	25%	5%	0%	5%
Funded Research Contracts	39%	39%	8%	15%	0%

Table 3.3f Role in the University and Age

	18-24	25-34	35-44	45-54	55-64	65+
Student-postgraduate	44%	40%	10%	4%	1%	1%
Student-undergraduate	90%	6%	2%	1%	1%	0%
Faculty	1%	3%	40%	29%	24%	3%
Staff	2.5%	21%	32%	33%	11%	0.5%
Technical	0%	10%	45%	40%	5%	0%
Funded Research Contracts	0%	25%	67%	0%	8%	0%

Awareness of Neurodiversity

85% of respondents were familiar with the term neurodiversity, whilst 46% of all respondents felt the term applied to them. A breakdown of awareness according to role is provided in Figure 3.3c, with awareness according to gender and ethnicity shown in Table 3.3g and 3.3h respectively.
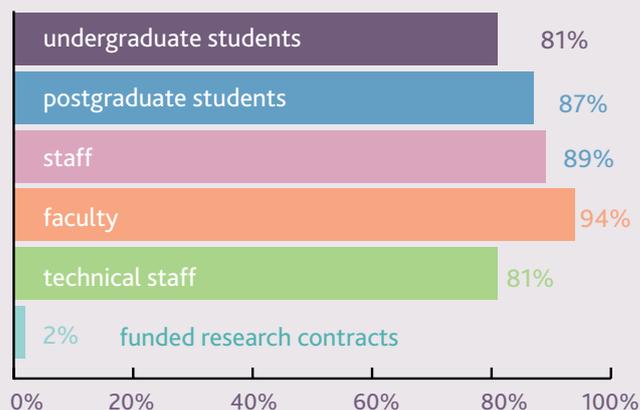
Figure 3.3c Role and Awareness: Percentage familiar with the term neurodiversity

Table 3.3g Gender and Awareness

Have you heard of the term neurodiversity before?	Yes	No
Female	86%	14%
Male	78%	22%
Non-binary*	100%	0%
Self-declare	100%	0%
Prefer not to say	89%	11%

*non-binary respondents accounted for 7% of all respondents, female 63% and male 27%

Table 3.3h Ethnicity and Awareness

Have you heard the term neurodiversity before?	Yes	No
Asian or Asian Irish: Chinese	47%	53%
Asian or Asian Irish: Indian/Pakistani/Bangladeshi	77%	23%
Asian or Asian Irish: Any other background	100%	0%
Black or Black Irish: African	78%	22%
Black or Black Irish: Any other Black background	0%	100%
Other including mixed group/background: Arabic	82%	18%
Other including mixed group/background: mixed background	73%	27%
Other including mixed group/background: other	100%	0%
White: Irish	88%	12%
White: Irish Traveller	67%	33%
White: Roma	20%	80%
White: any other White background	89%	11%

*See representative percentage of each ethnicity in Fig 3.3b

When asked to elaborate on what neurodiversity means, participants generally related their understanding to:

1.) diagnosable conditions,

2.) personal experience and

3.) the way in which the brain functions.

Within each of these categories there was high variability with some participants identifying very specific, restricted parameters and others perceiving the terms as applicable across humankind.

Illustrative quotes are included below:

"It's the idea that people experience and interact with the world around them in many different ways, people think, learn and behave in different ways and that's ok."

"Neurodiversity to me is a more inclusive term for people with autism, ADHD etc. and is a way to shift our views away from looking at these conditions as an illness and something to be fixed, and more as a normal variation between individuals, while also acknowledging the challenges faced by neurodivergent individuals living in a neurotypical world"

"Neurodiversity is like living life from a completely different perspective to everyone else. While I may have the most issues with communication and executive dysfunction, being ND means that I come up with ideas and solutions that neurotypical would never even think of. It's like seeing a rainbow where people see black and white"

"Descriptor used for individuals who are not neurotypical ie have a neurodevelopmental condition such as ASD, ADHD etc and experience aspects of life differently and may struggle with sensory issues etc"

"To me it doesn't exactly mean anything, it's just what I am. When people ask me 'what it's like to be gifted?" I usually respond by saying Uh, what's it like having two arms and two legs?"

"Neurodiverse can be understood in relation to neurotypical. It is a term used to describe people whose brain function is different from what is considered "normal" brain function."

Tables 3.3i, 3.3j and 3.3k illustrate more detail on the extent of personal experience of students, and personal and professional experiences of staff in relation to neurodiversity:

Students	
Table3.3i	**Do you have personal experience of neurodiversity in your family or friend group?**
Yes, family	15%
Yes, friend group	25%
Yes, both	41%
No	19%

Employees	
Table 3.3j	**Do you have personal experience of neurodiversity in your family or friend group?**
Yes, family	32%
Yes, friend group	19%
Yes, both	26%
No	23%

Do you have personal experience of neurodiversity in your family or friend group?
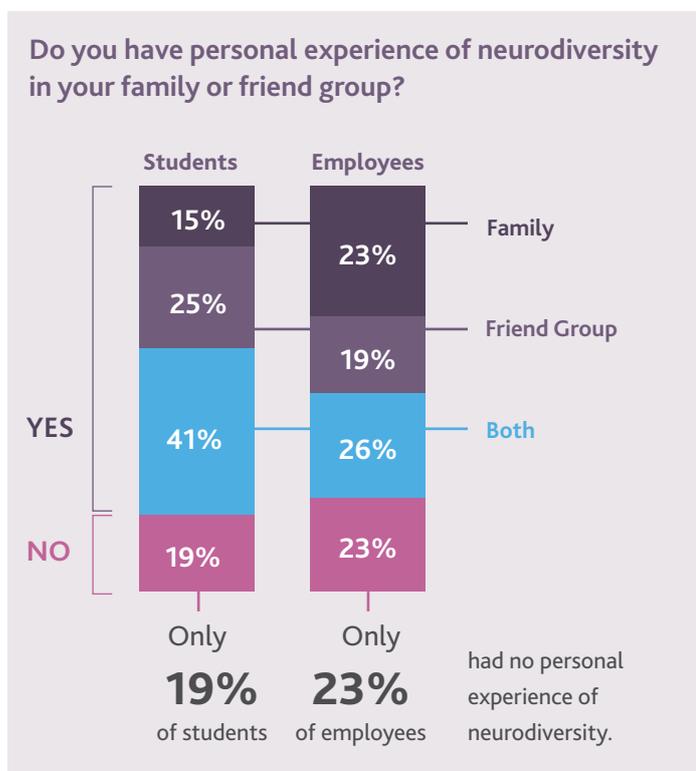
Staff	
Table 3.3k	**Do you have experience of neurodiversity in your work with colleagues or students?**
Yes	68%
No	32%

Of the 68% of staff who reported experience of neurodiversity with colleagues or students; this was reported to be with students most commonly, followed by colleagues and lastly both students and colleagues. Many respondents indicated that they were basing this on assumption rather than disclosure. Illustrative quotes are included below:

> *If we believe neurodiverse includes "normal", well then we have all had interactions."*
>
> *Staff*

> *I believe several colleagues may be neurodiverse"*
>
> *Staff*

> *I had disclosed my neurodivergent condition to a colleague who had a similar condition [withholding name of condition for reasons of confidentiality]. The opportunity to share experiences and to know that you are not to only one working in academia was a great relief. It can feel lonely sometimes."*
>
> *Staff*

> *While I have no confirmed knowledge of any diagnosis students or staff I interact with have, there are some colleagues that display behaviours that are very typical of behaviours associated with Autism or ADHD."*
>
> *Staff*

> *I have interacted with colleagues who appear to have noticeable difficulty with empathy or social skills which would suggest there is some they fall under one spectrum or another."*
>
> *Staff*

> *I work in the assumption that a percentage of those I encounter in all situations will be neurodivergent."*
>
> *Staff*

Neurodiversity Diagnosis & Disclosure

When asked if they thought the term neurodiversity applied to them, 46% of all respondents said yes, 34% said no, and 20% were unsure. It is worth noting that participants were presented with a list of conditions typically falling under the umbrella term neurodiversity to aid accuracy of answering. The reasons why respondents thought the term applied to them are illustrated in Fig.3.3b.

Responses to the question of whether the respondent thought the term neurodiversity applied to them was further explored according to role (Table 3.3l) and gender (Table 3.3m):
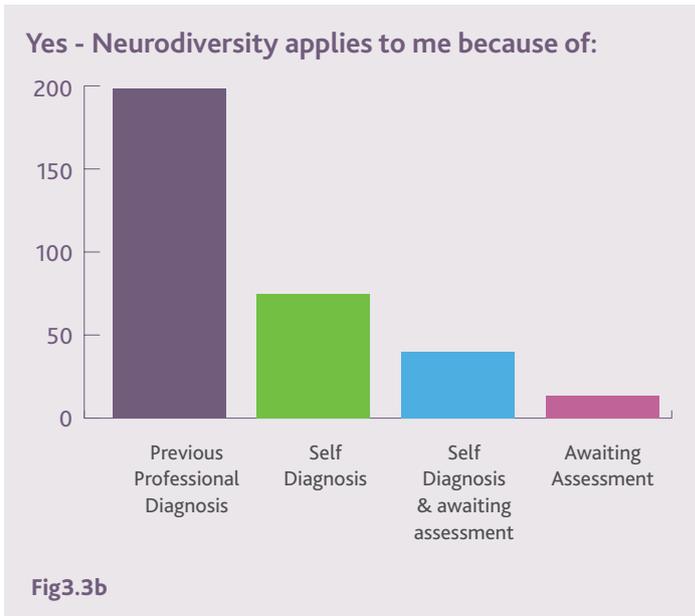
Yes - Neurodiversity applies to me because of:

Fig3.3b

Table 3.3l	Neurodiversity and Role						
	Yes previous professional diagnosis	**Yes self-diagnosis and awaiting diagnostic assessment**	**Yes self-diagnosis**	**Yes awaiting diagnostic assessment**	**Yes-total**	**Not sure**	**No**
Student-undergraduate	38%	9%	11%	3%	**61%**	19%	20%
Student-postgraduate	42%	8%	10%	2%	**62%**	15%	23%
Faculty	11%	3%	13%	0%	**27%**	14%	60%
Staff	10%	1%	7%	1%	**19%**	27%	54%
Technical	12%	0%	18%	0%	**30%**	24%	47%
Funded Research Contracts	10%	10%	20%	0%	**40%**	20%	40%
Total	**28%**	**6%**	**11%**	**2%**	**47%**	**20%**	**34%**

Table 3.3m	Neurodiversity and Gender						
	Yes-previous professional diagnosis	**Yes-self-diagnosis and awaiting diagnostic assessment**	**Yes-self diagnosis**	**Yes-awaiting diagnostic assessment**	**Total Yes**	**Not sure**	**No**
Female	26%	7%	8%	2%	**43%**	19%	39%
Male	27%	3%	13%	2%	**45%**	20%	35%
Non-binary	45%	14%	25%	2%	**86%**	12%	2%
Self-declare	43%	14%	14%	0%	**71%**	14%	14%
Prefer not to say	30%	5%	10%	0%	**45%**	40%	15%

Table 3.3n and 3.3o below indicate who students and staff most frequently disclosed to and, importantly, indicate the number who had not disclosed to anyone at UCD. Respondents were asked to tick all options that applied, the tables below indicate how many times each option was selected.

Table 3.3n	Student Disclosure
	No. of times selected
Access and Lifelong Learning	99
UCD Student Advisors	6
UCD Student Counsellors	6
Personal Tutor	8
Lecturer	4
Others*	61
Did not disclose to anyone at UCD	158

Others included: supervisors, module coordinators, module tutors, GP, disability centre, UCD psychiatrist & UCD Chaplaincy

Table 3.3o	Staff Disclosure
	No. of times selected
Human Resources	4
Employee Assistance Service (EAS)	0
EDI	2
Manager	14
Colleague	23
Others*	8
Did not disclose to anyone at UCD	94

Others included: manager, colleagues, students, ALL (from time as student) family members and friends, psychotherapist

86% of respondents indicated a positive experience of disclosure. Tables 3.3p and 3.3q provide further detail on the experience of disclosure according to role and gender:

Table 3.3p	Was disclosure a positive experience for you & role	
	Yes	No
N	16	0
Staff	**100%**	**0%**
N	117	20
Student-undergraduate	**85%**	**15%**
N	9	3
Faculty	**75%**	**25%**
N	37	5
Student-postgraduate	**88%**	**12%**
N	3	0
Technical	**100%**	**0%**
N	1	1
Funded Research Contracts	**50%**	**50%**

Table 3.3q	Was this a positive experience for you & gender	
	Yes	No
N	96	22
Female	**81%**	**19%**
N	55	2
Male	**96.5%**	**3.5%**
N	23	4
Non-binary	**85%**	**15%**
N	2	1
Self-declare	**67%**	**33%**
N	5	0
Prefer not to say	**100%**	**0%**

Respondents elaborated on the extent to which the experience was positive or negative. Qualitative analysis of these open text responses indicated that perceptions of the experience related to the following factors:

1. Access to and provision of supports and services

2. The nature of the response to a disclosure

1. Access to and provision of supports and services:

The perception of a positive experience of disclosure was related to the extent to which participants felt supports were easily accessible and implemented effectively:

> " *I spoke to my managers about my neurodiversity coaching, the assessment process, and my diagnosis. It was good that my managers had some UCD policies and procedures to refer to*"

> " *With ALL, it was a positive experience for me. I got access to the OT which has been massively helpful.*"

> " *Yes. I was given some helpful tools that help my experience in UCD. Most notably access to the app 'Glean' which has been the most beneficial source of help for me since the appointment.*"

> " *supports that have made the college experience much more manageable*"

In contrast, disclosure was perceived negatively when access to supports was experienced as protracted, costly, repetitive, and bureaucratic:

> " *The process for making accommodation requests is byzantine, bureaucratic and slow. All things that increase the executive overhead something that is already in short supply for most ND people*"

> " *I have been previously diagnosed in the USA, but when I came here, the paperwork was different since its a different system. This meant I had to pay to get re-evaluate but I had to figure this out on my own*"

> " *I thought that by telling XXX I would not have to disclose my neurodiversity to my lecturers and module coordinators. Instead, I have to go through the same talk, not only with each module coordinator, but each lecturer, which really defeats the point*"

> " *I have had an extremely difficult time getting the support I need. The hoops you have to jump through to get a baseline level of help is ridiculous. The way the system is set up has expectations and necessary correspondence that is very hard for me to adequately interact with. Especially when I need it most.*"

A more mixed or neutral perspective on disclosure often related to experiences where there was perceived to be a lack of follow up or a perception that an individual's needs were not being met:

> " *Initially but that was three years ago and there has been no follow-up*"

> " *I received the information that I required. However that is now several years ago and it is disappointing that there was no follow-up*"

> " *The initial… meeting was positive but I did not receive any follow up or support after*"

> " *It was fine…but everything else was left up to me to figure out. It would have been nice to receive follow up emails etc*"

> " *it wasn't negative, anyway, and it was kind of useful in terms of alternative exam location stuff. but i don't really feel adequately supported during the term at all despite trying to ask for what at least seems to me like a thing that is not super difficult? i want to do "body doubling" to study, because it helps me to work with less ADHD problems. but they (xxx) just directed me to a website (focusmate) that i already knew about. so not negative but also not positive, you get me*"

2. Nature of response to disclosure:

The manner in which the recipient of the disclosure responded influenced positive perceptions:

> " *Yes, I encountered people who were understanding and others who related to the issues I faced within the academic system*"

> " *Students just accepted it and moved on*"

> " *I have spoken to some of my colleagues about my diagnosis and they also reacted well on a personal level. I think it is beneficial for issues such as neurodiversity (and mental health) to be dealt with openly in a work situation if that is what someone wants…*"

> " *My tutor is also autistic and as a result we collaborated on making the classroom more accessible to my sensory needs*"

A more 'neutral' experience reflecting participants self-acceptance and awareness was evident:

> " *It was not really a big deal, just something I mentioned in passing*"

> " *Telling people I have dyslexia. It is neither positive or negative. It just is. I don't think people treat me any differently*"

> " *It was neither positive nor negative. I had been diagnosed when I was approx. 10 years old. As such disclosing my diagnosis to educational boards is just a regular part of my life*"

> " *It has been entirely neutral, which frankly IS positive. The response of "Oh, cool, good to know" and then not treating me any differently has been refreshing*"

> " *I've been openly neurodiverse for years*"

Some reported a more mixed experience where they had found disclosing positive in some ways, but not others:

> " *I find that students respond really positively to knowing that their lecturer understands the challenge of being neurodiverse, I have had colleagues say they don't know what it means; and a couple of jokes about me being clumsy, but mostly very supportive*"

> " *Generally positive but some were rude or dismissive when I discussed showing certain symptoms*"

> " *most lecturers have been helpful when i ask for help. none have outwardly said no, but some have never responded to my emails*"

Wholly negative experiences related mainly to perceived lack of understanding and resultant unhelpful actions of recipients:

> " *Some lecturers have not believed me when I say I need additional supports for my ADHD. In one instance, a lecturer/module coordinator refused to let me have a piece of paper during my online MCQ exam (which I would need to organise my thoughts/write down questions I need to come back to) despite me saying she could watch me have it and I would hand it up to her at the end or bin it…The lecturer had no empathy for the situation despite me explaining my diagnosis, especially as we were in the separate room for people with additional needs.*"

> " *Some lecturers don't see that neurodivergent students can miss out a lot if lectures are not recorded. Even when I attend lectures I have to listen back a second time because I can't focus on the lecturer if there is any kind of noise or movement in the lecture/tutorial space*"

> " *I get the sense that disclosures are not encouraged in the school where I work; which is surprising…! I would feel very uncomfortable disclosing that information to the majority of my colleagues. This is through no fault of their own, it's just that the culture is not there.*"

> " *As part of a module, we were asked to handwrite assignments. I was unable to do this without difficulty and disclosed to my tutor my diagnosis and was told I have to use of a laptop for this reason. The tutor proceeded to compare me to her own daughter, who had the same condition and tell me that I was not affected in the way I was describing. I was really distressed by this and dropped the module as I could not work with that tutor going forward.*"

The benefit of flexibility within a system to allow support without 'formal' disclosure was also highlighted:

> ❝ *I took about 10 months between discussing with our HR partner and actually formally disclosing -- the possibility of this middle-ground is something that should be more publicly announced. As it stands 'disclosure' or 'non-disclosure' looks like a hard binary choice, which can be unappealing at first, for I would guess, new staff, or in my case, newly diagnosed. When a person is newly aware of one's own condition it can take some time to adjust; reporting it to authorities doesn't always feel like the best first choice. I know it is much different to that in practice but this was a small part of my experience."*

Experience of supports and services

All survey respondents regardless of whether they felt the term neurodiversity applied to them or not were asked if they had direct experience of engaging with supports or services within UCD in relation to neurodiversity. 32% of student and 21% of staff respondents indicated in the affirmative. Tables 3.3r and 3.3s below indicate the supports/services that students (3.3r) and staff (3.3s) identified engaging with. Notably, some staff identified engagement with Employee Assistance Service (EAS), although none had indicated disclosing to this service in a previous question. In addition, some staff listed supports and services that they accessed during their time as students, or that they engaged with to support others rather than to directly access support for themselves:

Table 3.3r	Engagement with Supports and Services
Students	**No. of times selected**
UCD ALL	117
UCD Student Advisors	26
UCD Student Counsellors	28
Others*	12

Others included: AEADS (Alternative Exam Arrangements- Disability Support), Disability Centre, Exam accommodations, Extenuating circumstances/extensions

Table 3.3s	Engagement with Supports and Services
Staff	**No. of times selected**
EDI	25
HR	5
EAS	4
Others*	35

Others included: ALL, Student Advisors, Student Welfare, DSS, UDL badge, ECAC's psychology support, providing accommodations.

Reasonable Accommodations for neurodiversity

91% of students and 96% of staff thought that reasonable accommodations should be provided in all aspects of teaching. Similarly, 93% of students and 94% of staff thought that reasonable accommodations should be provided in relation to assessment. Staff were asked an additional question regarding reasonable accommodations in the workplace, with 98% agreeing that reasonable accommodations should be provided in the workplace in relation to neurodiversity. In the open text section, respondents were given the opportunity to further their responses. When qualitatively analysed, common themes highlighted by both students and staff in relation to teaching and assessment, and staff in relation to the workplace included:

1. Fairness, equality, justice, and inclusivity

2. Staff awareness, education, training, and support

3. Scalability

4. Improving the learning experience (student responses)

5. Inclusive teaching and assessment strategies (student responses)

6. Stigma and discrimination (staff responses regarding the workplace)

1. Fairness, equality, justice, and inclusivity

In relation to teaching and assessment, students and staff emphasised the role of accommodations in providing students with equal opportunities to learn and perform to their potential by 'levelling the playing field'. Both cohorts clearly noted the importance of accommodations in the interest of fairness, and fundamentally, in upholding basic rights. Staff also specified a need for a more widespread approach that makes teaching and assessment accessible for all types of learners rather than merely specific accommodations for some.

With regard to the workplace, the importance of supporting reasonable accommodations in the context of providing fair opportunities, ensuring diversity in the workplace and upholding employee rights was threaded throughout responses. Illustrative quotes related to teaching, assessment and workplace accommodations are presented below:

> *can be incredibly beneficial to students and allow them to reach their full potential and get the most out of lectures"*
>
> *Student*

> *We should acknowledge that all students are different and learn different (Regardless of being on the spectrum or not) and should strive to enable all to learn to their full potential"*
>
> *Staff*

> *Assessments can be particularly distressing for neurodivergent people because of our tendency to process and experience things differently and we should be provided with reasonable accommodations in order to be able to showcase our knowledge and talents with fewer limitations"*
>
> *Student*

> *Assessment should provide environment and assessment components that recognise the ways some student can demonstrate their abilities. This is is done already in lots of ways but can be more normalised into the overall assessment strategy."*
>
> *Staff*

> *It is unfair to assess neurodivergent students without accommodating for their needs and expect them to do as well as the other students"*
>
> *Staff*

> *The beauty of embracing a neurodiverse culture in the work place would allow us to work to our strengths and not pigeon hole everyone into working the same way with the same outputs expected from a role. It would also bring creativity and colour to certain roles with different perspectives and opinions being allowed to come forward"*
>
> *Staff*

> *Yes - all employers must follow the Equality Act 2010, this isn't optional. Ethically, there is also an obligation to address historical disadvantage of groups such as minorities, those with disabilities and protected classes. This is laid out in UCD's EDI policy, and so reasonable accommodations must be provided."*
>
> *Staff*

> *It is a matter of respect and fairness".*
>
> *Staff*

2. Staff awareness, education, training, and support

This was a central point that emerged in both student and staff cohorts. Students particularly emphasised the need for awareness, support, and education in relation to teaching, and highlighted a need for staff to have support in knowing how to facilitate different learning styles in general, as well as awareness of what accommodations are suitable for neurodiverse individuals, and how these can be applied in teaching and assessment. This was echoed in staff responses, where respondents emphasised the need to support and educate staff in facilitating accommodations successfully, and to increase awareness of what is available. The requirement for awareness, education, training, and support was mirrored in staff responses relating to the workplace. Many respondents recognised the importance of facilitating accommodations but highlighted a need for more support in doing so. This related to education and training for all staff in terms of awareness of neurodiversity. It also related to a need for increased awareness of what the University can offer those who may need these accommodations, as some respondents made suggestions that were in fact already in place. The provision of universal supports as well as individual accommodations was emphasised. Illustrative quotes regarding teaching, assessment and the workplace are presented below:

> *There may be a certain group of students who may need extensions to their assignments as they manage their disability. It might also be beneficial in certain cases for teaching staff to know, e.g. there's something that could cause a sensory overload, such ad the lighting in the room"*
>
> *Student*

> Some lectures don't give out there lecture slide on Brughtspce, or leave it very late so you don't have time to do the preparations you need as a neurodivergent student"
>
> *Student*

> *Sometimes its hard to know what types of accommodations are required (beyond the basics such as extra time, notes in advance etc.)"*
>
> *Staff*

> *I find double lectures particularly difficult, especially as lecturers often prefer to "power through" without a break"*
>
> *Student*

> *To the best of our ability we should help students who have learning issues. They can also contact lecturers directly to ask about any aspect which isn't clear. (as can all students) hits difficult to know how to alter notes and delivery to accommodate some on with ADHD for example"*
>
> *Staff*

> *Again I'm not sure what the accommodations should be- but follow the notifications in InfoHub around accommodations."*
>
> *Staff*

> *Yes - there should be awareness training for all staff and managers."*
>
> *Staff*

> *As part of the staff wellbeing services, there should be an additional clinic/service provided for neurodivergent staff members, to be able to speak to someone about managing their work/career with regards to their neurodivergency."*
>
> *Staff*

> *"At least discuss with the employee what res accom might help. Raise awareness of the supports available, this may encourage some staff to get a formal diagnosis"*

> *Certainly. Sometimes the smallest change can have the largest effect. A useful addition to reasonable accomodation would be some kind of short, semi-structured third-party moderated conversation opportunity service, for key relationships in the organisation, like a HR partner, line manager or a HR rep in a unit. Just so you know you can have a frank and safe one-to-one conversation with the right people if you needed to.*
>
> *Staff*

3. Scalability

Whilst respondents were clear on the requirement for reasonable accommodations in teaching and assessment, the feasibility of affording accommodations to all individuals in all circumstances was highlighted as a concern in both student and staff responses. This was coupled with the idea that some accommodations are more readily facilitated than others, with some in reality proving more difficult to apply. In this context, both groups identified a requirement for increased resourcing. The lack of accurate data on student and staff numbers with neurodiverse conditions was seen as a particularly important consideration in this matter, as without identification of true levels of need, adequate resourcing was deemed unlikely. Moreover, many staff highlighted the need to consider the impact of accommodations at an organisational level as well as individual when applied in the workplace. The potential benefit for the team/organisation as a whole was emphasised, although some respondents felt that the potential 'knock on' effect to other staff should be a consideration when facilitating accommodations. Illustrative quotes regarding teaching, assessment and the workplace are presented below:

66 *I feel like adequate attention can't be given to each individual in large lectures"*

Student

66 *My experience is completely the same to that of my neurotypical classmates, i have been given little to no additional support to help with the difficulties i experience in a lecture or lab setting"*

Student

66 *If possible although in some large classes it is difficult to see how it might be applied, but certainly in terms of presentation style etc"*

Staff

66 *Where diagnosed professionally, and within reason"*

Staff

66 *It is very difficult to provide a perfect accommodation to all neurodiverse individuals throughout the teaching period"*

Student

66 *I think it all differs from person to person so I think it would be difficult to accommodate everyone"*

Student

66 *Separate tests are not always helpful and appear to be the only option"*

Student

66 *Important to accommodate but also, have to be realistic about assessment process".*

Staff

66 *Depends what is included as reasonable but yes if a condition puts a person at a disadvantage related to neuro-typical."*

Student

66 *Yes so long as they are still doing their job, carrying the same workload as other people at their grade and not harming anyone else."*

Staff

66 *Yes. Everyone has so much to contribute and changing the environment is a much better strategy with much better outcomes for all involved."*

Staff

66 *by allowing people to embrace who they are and how their brain and body work to the best will surely improve how they perform at work and benefit the whole UCD community."*

Staff

66 *within reason - resentment could be felt by fellow workers"*

Staff

Additional areas that emerged in students' open text responses in relation to reasonable accommodations in teaching and assessment included:

___

4. Improving the learning experience

___

Students highlighted the impact of accommodations and demonstrated their clear importance in improving the student experience. Illustrative quotes from students regarding teaching and assessment are presented below:

> " *I was provided with a note taking software that allows me to record lectures, which makes a huge difference as I tend to zone out in lectures against my will!"*
>
> " *Accommodating neurodiverse people benefits them personally, but also reduces the likelihood of them disrupting others. Everyone should be capable of learning by whatever means suit them best."*

> " *Accommodations such as extra time or a reading interpreter is important for those who have learning disabilities like dyslexia in all examinations. Separate exam rooms is also helpful for those who would get overstimulated in a large exam hall."*
>
> " *I get additional time during exams and get to take exams in a smaller group which makes it much easier to focus when I don't have the noise of thousands of students being the only thing I can think of."*

___

5. Inclusive teaching and assessment strategies

___

Students highlighted the diverse ways in which they learn, outlining the requirement to develop teaching approaches that recognises this more broadly, in addition to providing specific accommodations for neurodivergent students. This was also evident with assessment, in that respondents also indicated that assessment methods across modules should allow the learner to demonstrate their learning to the best of their ability. Illustrative quotes regarding teaching and assessment are presented below:

> " *The assessments should be in different formats so that students, whether neurotypical or neurodivergent, they have an opportunity to demonstrate their ability and competency in the subject area"*
>
> " *Since assessments are a testament of someone's knowledge and abilities in their field, and not their ability to present it in a particular environment, they should be assessed in the environment that let's them best present it. That said, you're obviously never going to have a fully "fair" assessment, so don't be too hard on yourselves."*

> " *Teaching is often focused on the idea that students are functioning at what a lecturer might see as the neurotypical norm. As someone with DCD, I would have liked there to be recognition that some students may process information differently, and so there needs to be diversity and accommodation within teaching itself"*

Additional areas that emerged in staff open text responses in relation to reasonable accommodations in the workplace included:

6.   Stigma and Discrimination

Whilst respondents were largely in agreement on the provision of reasonable accommodations, the fear of stigma and discrimination was identified as possibly preventing access. The need to target negative attitudes was also evident. Illustrative quotes from staff regarding the workplace are presented below:

> " *Assuming a unified experience across all members of a workforce will lead to negative experiences for some people and the absence of visible accommodations could result in people being less likely to ask for help."*

> " *Yes, again these are a legal entitlements. I expect, however that due to possible stigma and due to the otherwise invisible nature of most presentations of neurodiversity, most staff would choose not to either seek a diagnosis or inform HR unless it because absolutely necessary."*

> " *In accordance with the person's wishes, but disclosure of neurodivergent status is a major issue. Fear of stigma, disbelief, etc."*

> " *Yes, though I think the hardest accommodations are the engrained ideas about how one ought to behave, interact, etc., as well as the unspoken rules, assumptions, codes, and manners that are never made transparent (unless you accidentally do it wrong)"*

It is worth noting that whilst the majority of respondents supported the provision of reasonable accommodations in teaching, assessment, and the workplace, this was not unanimous. With regard to teaching and assessment, this related to a perception that performance was not necessarily negatively impacted by neurodiversity, and that the provision of accommodations had the potential to disadvantage the student beyond university.

In relation to the workplace, responses emphasised the importance of staff being aware of neurodiversity and having a supportive stance rather than focusing on the provision of accommodations. The need to hire based on competence while simultaneously providing adequate individual support was also recognised. Illustrated quotes from staff and students regarding teaching, assessment and the workplace are presented below:

> " *All learning styles should be encouraged regardless of neurodiversity"*
>
> *Student*

> " *online material is adequate for self-studying"*
>
> *Student*

> " *In some instances, the disability will not impede performance in learning"*
>
> *Student*

> " *In life everyone will be examined the same so it shouldn't be different in college "*
>
> *Student*

> " *In some instances, the disability will not impede performance in assessments"*
>
> *Student*

> " *I think there is a limit – ND students can use uni as a safe environment to learn difficult skills gained through assessment such as oral presentations, meeting deadlines, etc."*
>
> *Student*

> " *Individuals should be recruited based on their current skill set and their desire to continue their development, personally and professionally. They should be given every assistance to achieve their goals."*
>
> *Staff*

> " *I think it is often not a matter of accommodation, but a matter of awareness and support. A friendly working environment where people are aware of neurodiversity will go a long way, without explicit exemptions for anyone classified in any specific category."*
>
> *Staff*

Table 3.3t below lists examples of reasonable accommodations in teaching, assessment and the workplace as outlined by staff and students including (but not limited to):

Table 3.3t Examples of Reasonable Accommodation		
Student examples	Staff examples	
Teaching	**Teaching**	**The Workplace**
• Accessible quiet space near classes	• Additional time for completion of work, group work participation	• Flexible working, shorter meetings, quiet workspace, use of headphones
• Permission to record classes	• Ensure teaching content is available in appropriate forms for neurodivergent students	• Helping with the introduction of visual material, etc
• Lecture notes online and available before class	• Reduced workloads	• Sensitivity training for neurotypical colleagues
• Recordings with captions	• Providing extra/alternative learning tools for lecture	• Allowance to design one's own workspace as they please
• Option of online or in class attendance	• Scribes, lecture notes in advance could be provided	• Option for Zoom meetings
		• A regular desk instead of hot-desking
Assessment	**Assessment**	• A quiet room for people to take a break for a few minutes
• Extra time in assessment	• Extra time	• Ability to use recording equipment for minute taking
• Separate exam centre	• Scribes	• Flexibility in relation to tasks, access to and navigation of buildings and systems, mapping of employee's strengths onto projects and tasks which will benefit most from those strengths
• Reader, Scribe	• Alternative venues etc could be provided	
• Allowances for errors	• Enhancements to exam centres and delivery of assessment (time allocation, how students can take their exam etc)	
• Extension		
• More detailed information on what is being asked	• Small-group/individual assessments to reduce distractions	
• Alternate assessment		

Neurodiversity and Career Progression

94% of students and 92% of staff thought that neurodiversity has an impact on students' future career progression, while 78% of staff perceived that neurodiversity impacts career progression of staff within UCD. Respondents were given the opportunity to further their responses in an open text area. When qualitatively analysed, common themes highlighted by both students and staff included:

1.
Recruitment and selection practices

2.
Stigma and discrimination

3.
Nature of neurodiversity characteristics

4.
Work culture and expectations

5.
Impact of limited awareness and accommodations (staff career progression only)

6.
Educational experience and transitioning to the workplace (student career progression only)

Neurodiversity and Career Progression Common Themes

1. Recruitment and selection

In relation to student career progression, staff and students highlighted a reliance on interviews as disadvantageous. This was related to concerns regarding performance, communication, and social skills in interview contexts. Similarly, staff mainly related the negative impact on staff career progression to traditional methods of recruitment and the disadvantage these can create for the neurodivergent candidate. Illustrative quotes from staff and students regarding recruitment and selection are presented below:

❝ *Also social conventions of specific rules and expectations for job application processes (CVs, Cover letters, interviews, handshakes) will be difficult to nuerodivergent people and negatively impact recruitment even though they are redundant in assessing a person's ability or skills to perform a job"*

Student

❝ *… people don't understand enough about it and the positive elements it can bring to the workplace"*

Student

❝ *I cannot talk for everyone, but for me everything related to networking, finding a job (applications, interviews, …), myself and my work requires a lot of efforts.*

Student

❝ *Additionally depending on the neurodiversity some people may struggle to make eye contact for a prolonged period of time which can make interviews harder and make a candidate seem less capable in the interviewers eyes."*

Student

❝ *Academic and staff promotions are based on the ability to 'fit' the commonly shared view of what is 'normal or typical'. We recruit in our likeness and reward those who look, act and behave like us."*

Staff

❝ *it can be difficult for ND people to navigate the promotions application system."*

Staff

❝ *It depends but I would say often it does. The skills brought by NDs may not be as recognisable or questioned for enough to have their skillset recognised in the same way. An interview is a very strange environment for anyone but for NDs it can be particularly difficult.*

Staff

❝ *I think that recruitment processes can be more challenging for some nuero diverse people."*

Staff

Neurodiversity and Career Progression Common Themes

1. Recruitment and selection practices
2. **Stigma and discrimination**
3. Nature of neurodiversity characteristics
4. Work culture and expectations
5. Impact of limited awareness and accommodations (staff career progression only)
6. Educational experience and transitioning to the workplace (student career progression only.

2. Stigma and discrimination

The fear and expectation of experiencing discrimination or stigma was identified by respondents as leading to avoidance of disclosure, which in turn was identified as preventing access to supportive accommodations and potentially further fuelling underlying fear and stigmatising attitudes. This related to the career progression of both staff and students. The lack of awareness regarding neurodiversity was also perceived by respondents as impacting career progression for students. Illustrative quotes from staff and students are presented below:

> wonder if disclosing my neurodiversity will effect my chances of being employed and whether worling environments can accommodate or forgive my differences."
>
> *Student*

> I think undiagnosed neurodiversity and lack of awareness negatively impacts career progression"
>
> *Student*

> In addition to this, while there is obviously stringent regulations on anti-discriminatory working and hiring practices, you can argue that neurodiversity may be a contributing factor to being excluded from hiring (either by the hirer/ by the person themselves due to undervaluing themselves), or from progression in the workplace due to insufficient access to workplace accommodations"
>
> *Student*

> I feel that there is still considerable stigma attached to ASD and ADHD. To my knowledge, there are no accommodations for neurodiverse staff and probably more importantly there is no culture of open self disclosure in UCD."
>
> *Staff*

> Same issues - may be negative following disclosure - stigma etc. May also be negative in the case of non-disclosure - difficulty operating in neurotypical environment"
>
> *Staff*

> Some traits of neurodiversity are still seen negatively, or difficult to deal with, and instead of adapting UCD's approach, it feels like not allowing staff to progress is the easier option for UCD/managers."
>
> *Staff*

> they will be disadvantaged if they cannot communicate in the way they are expected to. For instance, they might be to direct saying what they think and this might be interpreted as agresivity. They might be slow completing task because they do not fully understand what it is expected (usually one needs to read between lines and this is difficult even for people without any issue)."
>
> *Staff*

3. Nature of neurodiversity characteristics

The impact of neurodiversity on career progression for students and staff was linked by some directly to the nature of the neurodivergence in that some characteristics were perceived as more likely to impact negatively on career progression than others. Similarly, some respondents felt that different characteristics would be associated with different types of challenges resulting in varying impacts in terms of student and staff career progression. Others characterised the impact on career progression as just one of the 'inevitable' negative impacts of neurodivergence over the life course. In relation to staff career progression, respondents also highlighted contextual factors and the presence/absence of an enabling environment as key. Illustrative quotes from staff and students are presented below:

" I think employers are less likely to hire someone who is neurodivergent as they may see it as something that holds us back and could make us not as a good a fit as someone who is considered normal"

Student

" Neurodiversity can impact motivation and the ability to work consistently. Some forms of neurodiversity mean people will get lots of work done in short bursts. This means it may be challenging to work on long-term projects. This can impact someone's ability to get work done over a long time frame and stick to a project once the initial motivation has worn off." (student)

" Neurodiversity affects all aspects of a person's life all the time, so therefore again it is going to impact their future, not necessarily badly for all neurodiverse students but for those who need more accommodations or who even just disclose to future employers may find it harder to progress further"

Student

" Neurodiversity impacts different parts of your life. Things that most people think of as basic skills such as spelling or listening, remembering then taking notes, I find difficult. How could this not impact future career progress?"

Student

" It may be beneficial in certain roles, eg roles requiring systems thinking and strategic thinking"

Staff

" Depends on factors including diagnosis and supports available to the individual"

Staff

" navigating a neurotypical world can be exhausting and time consuming, leading to difficulties completing tasks, meeting expectations, applying for new roles, moving to new roles"

Staff

" It can be more difficult for neurodiverse people to be confident in their skills and get involved outside of their daily tasks and I believe that this can hinder progress"

Staff

" It really depends on what type of employment your working under, which department, and who your line manager is. Sometimes you get lucky and they make space for you and you get to perform to the best of your abilities. Others operate on much stricter terms."

Staff

" as framed by the questionnaire, of course, though the direct impact of neurodiversity on career

Neurodiversity and Career Progression Common Themes

1. Recruitment and selection practices

2. Stigma and discrimination

3. Nature of neurodiversity characteristics

4. **Work culture and expectations**

5. Impact of limited awareness and accommodations (staff career progression only)

6. Educational experience and transitioning to the workplace (student career progression only.

4. Work culture and expectations

Respondents identified individual challenges relating to differing neurodevelopmental conditions as having the possibility to negatively influence career progression. In addition, respondents highlighted how potentially disempowering, personal perspectives may influence a person's expectations and sense of their potential to be successful in a given career. Respondents also noted that contrary to the assumptions of some, neurodiversity does not preclude success in careers with the capacity to excel also a possibility. Respondents also saw the incessant competitiveness integral to some career pathways as having a more detrimental impact on the wellbeing of neurodiverse people. When considering staff career progression, respondents indicated that the culture of academia, might be potentially challenging for neurodivergent staff. Illustrative quotes from staff and students are presented below:

> " *As someone who struggles with reading and writing my career path will go towards areas in which this is not a large part of my career".*
>
> *Student*

> " *I think neurodiversity will impact career choices but I don't think neurodiverse people are less capable of having successful careers. In many cases they are actually more capable than neurotypical people." (student)*
>
> *Student*

> " *The "rise and grind" or hustle culture that comes with some careers can be detrimental to neurodiverse people's health"*
>
> *Student*

> " *Probably. Academia is heavily influenced by networking and clientelism"*
>
> *Staff*

> " *As neurodiversity impacts the way a person experiences life, it impacts what careers they can have/would feel comfortable having. This can manifest in not being able to have jobs that impact sensory issues, but can also manifest in being excellent at jobs that require the ability to do the same rote task over and over again, in my case."*
>
> *Student*

> " *Quite a settled and conservative process for staff development in the HE sector. Need to do this and that ... which many will find very difficult to do"*
>
> *Staff*

> " *UCD is a pressured environment - limited recognition of particular challenges faced by those who diverge from neurotypical 'norm'"*
>
> *Staff*

> " *So much decision making is based on 'personality' and communication, which may be a challenge for those who are neurodiverse."*
>
> *Staff*

Neurodiversity and Career Progression Common Themes

1. Recruitment and selection practices

2. Stigma and discrimination

3. Nature of neurodiversity characteristics

4. Work culture and expectations

5. **Impact of limited awareness and accommodations (staff career progression only)**

6. Educational experience and transitioning to the workplace (student career progression only.

5. Impact of limited awareness and accommodations

This was highlighted by staff in relation to staff career progression, highlighting the negative impact of limited awareness of neurodiversity as well as limited awareness of, and access to, accommodations specific to neurodivergence. This related to incidences where differences in social interaction and communication style could be misconstrued or where accommodations were not forthcoming for reasons related to awareness and subsequent access. Illustrative comments from staff are presented below:

> *In my unit, there is no particular attention given to neurodiversity. I believe that if it would've been brought up, people would be open to accommodate. However, I am not confident that someone with neurodiversity would have the same chances at career progression as others."*

> *Yes, employees who aren't diagnosed/receiving support might exhibit behaviours that arent understood by colleagues & they might, for example, be seen as 'rude' when the realitiy is their condition may help colleagues understand their behaviours"*

> *I would ask for more support systems, more communication about the support. If ever possible, and I know this is really difficult in Ireland, somehow help people to get a diagnosis?"*

> *if the staff is not provided with reasonable accommodation, it may negatively impact their ability to carry out their tasks, which may lead to a poor job performance, limiting their ability to progress."*

Making UCD a Neurodiversity Friendly Campus

Neurodiversity and Career Progression Common Themes

1. Recruitment and selection practices

2. Stigma and discrimination

3. Nature of neurodiversity characteristics

4. Work culture and expectations

5. Impact of limited awareness and accommodations (staff career progression only)

6. **Educational experience and transitioning to the workplace (student career progression only.**

6. Educational experience and transitioning to the workplace

This was highlighted by students in relation to the influence on their careers of access to accommodations and supports during their time in Higher Education. The potential impact of the loss of accommodations, and particular issues in transitioning to the world of work, were also outlined as key concerns. When accommodations and supports are provided beyond Higher Education and into the workplace, respondents thought that the impact of neurodiversity on career progression may be lessened. In contrast, respondents indicated that progression can be stifled where accommodations are not provided or available, both in the University and future workplaces. Illustrative comments from staff are presented below:

66 *If a student doesn't work well under conditions without extra supports they may receive a grade that doesn't portray their real understanding of the subject, which may negatively effect their chances of getting a particular internship, work placement, further education position or career."*

66 *If you can't learn to your full potential how are you supposed to proceed in the future"*

66 *I haven't thought about this to any great level before, but I would imagine, if someone has been using accommodations to illustrate their full potential in college it may be difficult to get those same accommodations when trying to progress your career".*

66 *if ppl are accommodated with learning, they walk out of college with better skills + knowledge."*

66 *Yes I do as all the supports given in university are all taken away"*

66 *If students are not given the understanding, acceptance and accommodations they need to excel in school they will likely not progress to further education. In the workplace they will require the same understanding, acceptance and accommodations if they are to succeed. I have and will continue to struggle with trying to maintain a job in an environment that does not accept difference. Until employers are willing to accommodate people who work in a different way we will never reach our potential in the workplace."*

66 *…Further more, there needs to be more innovation and creativity in different employment sectors that would support neurodiverse workers and allow them to be independent and successful."*

66 *It absolutely impacts career progression. Students who are neurodivergent are capable but are often unable to function without some sort of accommodations for their job. Often times these accommodations don't impact anyone negatively but allow for success of everyone."*

Some respondents indicated that they did not think neurodiversity impacted career progression. This related mainly to the positive influence of accommodations and the variable level of impact individuals may experience with regards to neurodiversity. Illustrative quotes from students are presented below:

> *People with neurodiversity will find a workplace and a job that they can do, they know their limitations better then some sociology major"*
>
> *Student*

> *because I feel as though there is adequate support out there for those who need it"*
>
> *Student*

> *In most cases - no, but in some cases - yes (would depend on the extent of neurodiversity (i.e mild vs severe). Severe neurodiversity may be seen as a 'barrier' whereas mild neurodiversity may be seen as acceptable, or even advantageous for an employer."*
>
> *Student*

> *In this day and age, many accommodations are being made for students who are neurodivergent. While I do understand the struggles they may go through, I do not think that their futures' are limited because of their neurodiversity. Some neurodivergent syndromes, such as Tourette Syndrome, may impact the future careers of some students due to safety concerns. For example, someone with high functioning Tourette Syndrome may need to pass additional medical examinations in order to be a practicing neurosurgeon (I am sure there are other elements involved, but this is a general example)."*
>
> *Student*

> *if given supports when required."*
>
> *Student*

Identifying Successes and Next Steps

Participants were asked open ended questions regarding what they felt UCD is doing well and what could be improved in relation to neurodiversity. The open text responses were thematically analysed, with themes emerging regarding positive perspectives, opinions and experiences related to:

1. Inclusivity

2. Support-accommodations/services

3. Environment

Inclusivity

Participants emphasised a culture of inclusivity as crucial to the process of developing a neurodiversity friendly campus. Both staff and students described being optimistic about the fact that UCD had 'started the conversation' to increase awareness and understanding of neurodiversity. Participants identified a range of positive sequelae of this process, once again highlighting the correlation between increased understanding and normalisation of neurodiversity. This in turn was noted by participants to link to reduced stigma and fear in regard to disclosure and increased likelihood of positive engagement with support services and/or access to relevant accommodations. Participants again, as in many components of this research project, stressed the absolute need to promote a campus culture of belonging rather than settling for tokenistic gestures of inclusion. Participants also identified a key role for neurodiverse role models exemplifying to both students and staff the rich benefits of truly inclusive learning and working spaces. Illustrative quotes from staff and students are presented below:

> *…seeing neurodiverse staff excelling in their profession and being good role models makes me happy, and feel like I have the potential to achieve my goals."*
>
> *Student*

> *I think the culture of UCD is very accepting and I really appreciate that the topic of neurodiversity is something that comes up often, as it was always ignored in secondary school in my experience."*
>
> *Student*

> *I think the understanding of neurodiversity is still in its infancy in UCD (that might just be me). I think it is great that UCD is promoting the understanding and acceptance of neurodiversity. Specific events in UCD to highlight neurodiversity are most welcome."*
>
> *Staff*

> *I believe the dialogue is respectable, the approach to service and support is similar, and the drive to expand alongside neurodiverse awareness in society a noble endeavour."*
>
> *Student*

> *The awareness is growing and I think most academics would be open to providing supports to neurodiverse students, but it would usually require specific requests, they wouldn't automatically be provided."*
>
> *Staff*

> *Yes UCD have made great strides towards being an accessible space for neurodivergent students and employees under it's EDI policies and introduction of it's neurodiversity courses and celebration week."*
>
> *Staff*

> *A lot! I was positively surprised by the supports, though I may be biased because I actually started using them. Seeing how much feedback is collected, it feels like a very friendly & constantly improving environment. Even if I run into difficulties, I feel like my concerns will be heard if I raise them."*
>
> *Student*

> *The conversations started to happen, the recognition of what it is and how it affect people in UCD is getting in place even slowly."*
>
> *Staff*

Supports-accommodations/services

Students highlighted their positive experience in relation to supports and accommodations, with staff referencing the provision of supports and services for students as a positive. Students particularly referenced ALL, exam accommodations, availability of Occupational Therapy via ALL, student advisors, experienced supportive staff, provision of resources, and counselling. Whilst accommodations for staff did not feature heavily in the responses, some respondents favourably characterised "working arrangements" as having a positive impact. Illustrative comments from staff and students are presented below:

> ❝ *Access and lifelong learning has really helped me in the form of Occupational therapy appointments"*
>
> *Student*

> ❝ *i got a cool recordey pen from ALL that records the lecturer's voice while i write notes! and i get a computer and extra time :)"*
>
> *Student*

> ❝ *I think that students are generally well supported, at least those who I / my colleagues teach."*
>
> *Staff*

> ❝ *ALL is a good platform decentralised from administration, approachable and symbolically core to the central library in the university"*
>
> *Student*

> ❝ *Great it is become a thing. Students probably have supports and although staff training could be better there are trained people to talk to."*
>
> *Staff*

> ❝ *Availability of Employee assistance programme (although no personal experience with this but it is beneficial to have counselling available if needed) and acceptance of individual differences in performance"*
>
> *Staff*

> ❝ *There is a level of awareness via the ongoing EDI work, and students with forms of neurodiversity can be identified via the system in a confidential way, so they do not have to approach a lecturer to request reasonable accommodations"*
>
> *Staff*

> ❝ *there is a service in which neurodivergent people can ask for adaptations only problem is that we need to call or send an email in order to get the appointment which is very hard for autistic people."*
>
> *Student*

Environment

While respondents noted challenges in UCD's physical environment they also highlighted constructive developments. For example, the provision of quiet spaces was identified as helpful with a broad range of other specific aspects of the physical infrastructure, ranging from particular signage to colour schemes, also categorised as having a positive impact. Illustrative comments from staff and students are presented below:

> *Generally there are many quiet and open spaces around campus to escape to"*
>
> *Student*

> *Outdoor areas such as the Engineering lake is a calming place to be."*
>
> *Student*

> *I like the bright colours against the grey backdrop - they're never too overwhelming, and blend seamlessly with what nature our campus has to offer."*
>
> *Student*

> *Respite room in the library"*
>
> *Student*

> *I appreciate the floor signs in Newman, as I often look down as I walk."*
>
> *Staff*

> *I love the new spaces on campus where you can go and sit in quiet and decompress from the busyness of the university…having the woodland to walk around on lunch is such a tonic for me."*
>
> *Staff*

> *There are spaces on campus, specially in the new buildings, designed to accommodate neurodiversity. Some tools in Brightspace also accommodate for that."*
>
> *Staff*

Analysis of the open text responses emphasised areas requiring improvement as well as suggestions on developing a more neurodiversity friendly UCD. These included a need to:

1.

Increase inclusivity through awareness raising and education across the UCD community

2.

Promote inclusive teaching and assessment practices

3.

Widen access to assessment and accommodations

4.

Provide specific individualised supports

5.

Promote social supports

6.

Prioritise staff support

7.

Improvements to the digital and physical environment

8.

Increase neurodiversity friendly recruitment and selection practices

1. **Increase inclusivity through awareness raising and education across the UCD community**
2. Promote inclusive teaching and assessment practices
3. Widen access to assessment and accommodations
4. Provide specific individualised supports
5. Promote social supports
6. Prioritise staff support
7. Improvements to the digital and physical environment
8. Increase neurodiversity friendly recruitment and selection practices

1. Increase inclusivity through awareness raising and education across the UCD community

Participant responses highlighted a more general requirement to educate and raise awareness among the UCD community, thereby tackling stigma and discrimination and promoting a sense of belonging. The need to provide clear, easily available personalised information on how to access supports-for staff and students was identified as key. Once again, the necessity of a continuing dialogue to provide opportunities to hear the neurodivergent voice was seen as fundamental. Illustrative quotes from staff and students are presented below:

> " I think more awareness and education is necessary. I still hear people using an ableist language around campus which I think is due to a lack of education on why this language is destructive."
>
> *Student*

> " While I can see that UCD is trying to improve, they still have some ways to go. I would love to see more focus on student neurodiversity in physical design, better accommodations, and more awareness of help available (though the Access team does amazingly)."
>
> *Student*

> " I've never heard that UCD had neurodivergent services - this has never been made clear to me until now. As someone on the spectrum i never would have even looked if ucd had available services like this."
>
> *Student*

> " There is far more awareness for students than staff. Students have access. For staff, support pathways are not as clear.
>
> *Staff*

> " In some aspects yes but I feel the majority of the staff members don't understand the struggles we as students face with being neurodivergent, Many a time I have been told "When you graduate from UCD people are expecting that you mastered to write like every other student. If this is news to you you need to discuss this with disability support." This is just one of the encounters I faced yesterday"
>
> *Student*

> " A real understanding on what would actually help by listening more to our neurodiverse staff and students"
>
> *Staff*

> " Have sensory friendly periods eg. times when lights are dimmed and unnecessary noises are muted."
>
> *Student*

> " Perhaps make a panel of neurodiverse people and listen to their views? Or take head of the responses to this survey!"
>
> *Student*

> " Neurodiverse staff need to know that they will be supported when it is disclosed"
>
> *Staff*

> " A lot more education and awareness need to happen among staff so they are able to recognise and understand how to approach students and colleagues with neurodiversity."
>
> *Staff*

> " At this point, nothing. UCD is far behind other universities in accommodating and welcoming neurodiverse students. Accommodations are dismal and the general attitude from staff and faculty is still entrenched in the stereotypes of neurodivergence."
>
> *Student*

2. Promote inclusive teaching and assessment practices

Respondents strongly endorsed a need to promote and develop inclusive teaching and assessment practices. In line with the clear majority of respondents' favourable view of the need for student accommodation provision described previously, participant responses further underlined how educating staff in more inclusive teaching and assessment methods was essential. To provide a basis for staff increasing the inclusivity of their teaching and assessment, increasing staff knowledge of neurodiversity, and directly supporting staff to support neurodivergent students was identified as critical. Respondents emphasised that careful consideration is required as to optimal teaching strategies, assessment choice and type. Finally, respondents stressed the onus on the University to ensure that assessment methodologies facilitate successful attainment in a fair and equitable manner. These basic steps were also seen as a crucial mechanism to significantly enhance UCD as a neurodiversity friendly campus. Illustrative quotes from staff and students are presented below:

> " *more practical strategies and training for all teaching faculty how to support neurodiverse students"*
>
> *Staff*

> " *Training for faculty and staff in supporting people with neurodiverse conditions"*
>
> *Staff*

> " *More clarity in how staff should assess neurodiverse students. Many recommendations are vague and essentially require staff to assess the student's ability. Most staff are not qualified to do this"*
>
> *Staff*

> " *more access to full lecture materials online for students who become overwhelmed/over stimulated during the day and need a break and choose to catch up later,"*
>
> *Student*

> " *Lecturers and tutors should be more aware of differing needs and cater to those needs, not just to the neurotypical students".*
>
> *Student*

> " *Make group work in assessment voluntary (I know some people like working in groups, but the lack of control and constant socialising exhausts me and doesn't allow me to complete my work to the same standard as when I'm alone)"*
>
> *Student*

> " *How you test students, bulk memorisation is awful for many neurodivergent people that have the skills to excel in their field. Make group work in assesment voluntary (I know some people like working in groups, but the lack of control and constant socialising exhausts me and doesn't allow me to complete my work to the same standard as when I'm alone)"*
>
> *Student*

3. Widen access to assessment and accommodations

The difficulty in accessing diagnostic assessment as a roadblock to accessing accommodations was highlighted. Whilst some students have experienced timely access to accommodations and supports and characterised their experience of UCD as a positive one, this was not universal. The substantial, negative (particularly as a barrier to accessing appropriate and timely accommodations and supports) impact of a requirement for a diagnosis was also evident, with participants suggesting an important role here for the University. Illustrative quotes from staff and students are presented below:

> " I can't speak for student support because I am not able to access ALL support until I have an official diagnosis which is really hard/costly to get.I think it would be helpful if UCD could assist with the process of diagnoses".
>
> *Student*

> " Improved supports for students who are awaiting professional diagnoses. The road to a professional diagnosis can be long, expensive, and in some cases traumatic- leaving students unable to afford/deal with that process in the present with no grounds on which they can apply for disability supports."
>
> *Student*

> " Discounts for testing for staff (it is very expensive to get tested)"
>
> *Staff*

> " ...Offer professional diagnosis / consultation to those students and staff that believe that may benefit from support."
>
> *Staff*

> " Not sure as I have not accessed any accommodations yet, as I haven't been able to get a formal diagnosis yet."
>
> *Student*

4. Provide seamless access to individualised supports

Participants emphasised the importance of access to dedicated supports for neurodivergent students that were up to date and specific to the person's needs, as well as appropriate to the level of study i.e. from undergraduate through to PhD students. Participants highlighted that this requires recognition that needs/skills vary at different points of the student journey and therefore capacity for review of needs should be built into any system if it is to be of ongoing value. This was coupled with a requirement for a wholly unified, communicative system that facilitates seamless access to, and ongoing provision of, supports throughout the individual's journey. Illustrative quotes from staff and students are presented below:

> " *Provide better collaboration and connection between the various support services (i.e. DSS - Student Advisers - Schools/College Offices) that travel with the student throughout their entire time in UCD. Better ways of identifying and tracking students while ensuring that they do not feel labled or stigmatized".*

Staff

> " *I have not been managing well personally in relation to Neurodiversity. I find it difficult to access any information on supports and find the process of receiving support intimidating".*

Student

> " *'on paper' there are supports... However I see them often as disjointed and not linked up."*

Staff

> " *have specific accommodations for PhD students (I have exam and assignments accommodations for my disability but as a research PhD student I don't have exams or assignments so I don't have any accommodations for me that I can actually use)"*

Student

> " *I think the supports for students with ADHD are sort of dated and surface level. It seems like they're trying to address a list of symptoms rather than difficulties real students face."*

Student

> " *I think that system for granting accommodations to students should be reviewed to see what specific supports students require. In particular, the supports should be proportional to the severity of the disability/disorder the student suffers from, rather than granting every student the same accommodations"*

Staff

> " *I think the there are supports but it is very hard to excess some as there is no allowance for how broad each diagnosis is for individual"*

Student

> " *In the future, maybe a dedicated support team for neurodiverse students."*

Staff

> " *Reasonable accommodations for students. Although I think that this system could be improved to have a wider scope and large range of accommodations"*

Staff

5. Promote social supports

Students highlighted a role for the University in promoting opportunities for social supports for all level of students including undergraduate, postgraduate and PhD. Loneliness was seen as a pervasive concern, impacting negatively on university life. Once again the need to develop mechanisms to combat loneliness and enhance the sense of belonging within the University was seen as particularly important. Illustrative quotes from students are presented below:

> " *Help meeting people and making friends. As someone waiting on an autism assessment I find it very difficult to socialise and make friends making my experience in UCD not a positive one. I have found UCD a very lonely place because of this".*
>
> " *Support groups for neurodivergent staff and students"*

> " *have a support group for neurodivergent PhD students, Postdocs and other staff (there's a lot of us)"*
>
> " *Might be nice to have some sort of space or club for neurodiverse people to get to know each other and talk about their experiences. Many people probably feel alone with their condition, with nobody to talk to except maybe the counsellor."*

6. Prioritise staff support

While, as noted above, staff respondents were clearly in favour of student accommodations, they also emphasised the absolute requirement for staff needs to be equally prioritised, understood, taken seriously, and supported. Respondents noted a range of approaches which they identified as enhancing the current campus climate in relation to staff neurodiversity. This included basic steps such as awareness raising and training. In addition, staff underlined the benefits of flexibility when considering supports including meeting formats, working hours and most fundamentally flexibility in the nature of accommodations that individuals access. To facilitate the provision of increased supports, a need for increased awareness among managers as to available supports and accommodations was also recognised. Importantly, a need to aid disclosure was also highlighted. The need to ensure that the process of disclosure was understood to be safe, ie. would not result in negative consequences for the person disclosing, was also highlighted. Illustrative quotes from staff are presented below:

> " *…2) Sensitize line managers 3) Ask Heads of Schools and others to host meetings in diverse formats"*
>
> " *Invite colleagues who self-identify as neurodiverse to specify the supports they personally require to discharge their duties effectively, and make it clear that they will not be penalised for requesting supports."*
>
> " *Increase support pathways for staff."*

> " *Awareness raising, manager training on reasonable accommodations and neurodiversity. How to lead diverse teams."*
>
> " *Make all units aware of what kind of accommodations are available, include it in the hybrid work policy"*
>
> " *Hybrid working and flexible hours"*

7. Improvements to the digital and physical environment

Both the physical and virtual environment were highlighted by participants as spaces requiring a neurodiversity focus in development plans. The need for dedicated spaces was particularly highlighted by staff and students and largely related to the need for sensory spaces or quiet spaces across campus as well as provision of spaces dedicated to neurodivergent students and staff. Illustrative quotes from staff and students are presented below:

> *Use more accessible language in basic processes for registration, no need for complex terms (could have the jargon connect to a link that explains the term in regards to the process)."*
>
> *Student*

> *I have a PhD desk in a large room which is often very hot and very bright artificial lights. This means I rarely go to the School and prefer to work from home.*
>
> *Student*

> *Offer yellow backgrounds online so I can read easier"*
>
> *Student*

> *The florescent lights are hell"*
>
> *Student*

> *ALL READINGS SHOULD BE POSSIBLE TO EASILY BE READ BY SCREEN READERS. Dark/night mode for all online activities."*
>
> *Student*

> *For staff, less open-plan and more mixed type office space. More smaller amenities like cafes, or side areas that are acoustically friendly (not dampend, not to live). I know you can't change the business during term time but the amount of human heave in all places is taxing."*
>
> *Staff*

> *To have a sensory space to decompress if having a meltdown."*
>
> *Student*

> *more quiet spaces that aren't study-centred"*
>
> *Student*

> *provision of quiet/sensory areas for staff and students; greater awareness of neurodiversity in relation to the planning of workspaces and the refurbishment and building and landscape projects on campus."*
>
> *Staff*

> *Also, having spaces dedicated to neurodivergent student, such as quiet rooms would definitely be really helpful. If there were any way to make this exclusively for neurodivergent student this would be really nice."*
>
> *Student*

> *Also, some of the accessible button doors are broken, so these should be checked out more often."*
>
> *Student*

> *possibly a sensory safe space room to give students relief from he overwhelming environment"*
>
> *Student*

8. Increase neurodiversity friendly recruitment and selection practices

Staff participants highlighted the need to ensure equal opportunities for neurodivergent job candidates. This included the provision of training to interview panels to ensure cognisance of barriers in the interview process for neurodivergent staff, as well as application processes accessible for neurodivergent candidates. Illustrative quotes from staff are presented below:

> " *Ensure ND is taken into account in recruitment - make the application systems easier to manage, or give people the option to just email in their application with no adverse consequences."*

> " *Make hiring practices more transparent to help with bias against neurodiverse applicants, e.g. REQUIRE training for anybody involved with hiring around inclusive hiring practices, having independent observers on panels to help fight unconscious bias"*

Conclusion

The survey is the first comprehensive exploration of staff and students nationally with respect to neurodiversity. The data provides crucial insights into the range of perspectives and key issues to consider relating to neurodiversity within the UCD community of staff and students. Furthermore, it allows comparisons between what is known globally in regard to neurodiversity in Higher Education settings with what is being experienced directly within our own community, and signposts key areas for development to enhance and progress the journey towards a world leading neurodiversity friendly campus.

Stage

4

Qualitative Interviews

Work Package Lead	Deirdre O'Connor (DOC)
Work Package Team	Blánaid Gavin (BG), Timmy Frawley (TF), Beth Kilkenny (BK), Hannah Lynch (HL), Sandra Connell (SC)

Introduction

To facilitate a more in-depth analysis of the UCD neurodiversity experience, a series of individual interviews were conducted. This section of the report will present the findings of these interviews, which have been divided into a number of themes and subthemes to capture the diverse experience of participants with respect to neurodiversity in UCD.

Methodology

To ensure that the research was as inclusive as possible, multiple strategies were employed to reach participants. All those who participated in the survey had the opportunity to partake in the interviews. In addition, there was purposeful sampling with a 'snowballing' invitation issued to any potentially interested parties through identified stakeholders. In keeping with the ethos of the neurodiversity paradigm, and the clear need to foreground inclusion in the study methodology, there were no exclusion criteria. The projected participant numbers were based on previous literature. 67 people initially responded to indicate an interest in participating.

Data Collection

37 interviews comprising 21 staff and 16 students were carried out. These are in line with typical numbers for studies of this sort. To ensure absolute anonymity, no further demographic information was collected. Interviews took place virtually using the platform Zoom and were audio recorded. Prior to the interview commencing, participants were reminded of the audio recording together with a reminder of the details provided in the Information Leaflet and review of consent. Participants were also advised about the confidentiality of the material discussed. Finally, participants were also reminded before the interview started that they could skip any topic they did not wish to discuss. They were reminded that if they did not feel comfortable either physically or emotionally they could let the interviewer know.

The semi structured interviews were shaped by use of a Topic Guide. The Topic Guide was based on a review of the literature, together with key concerns identified by the stakeholder groups. Topics included but were not limited to: participants' experience and awareness of neurodiversity within UCD; their views on, and awareness of, support structures and their experiences relating to disclosure and perspectives on career impacts of neurodiversity. Participants were invited to outline any other relevant areas which they wished to highlight.

Data Analysis

The Zoom interview recordings ranged in length from 12-68 minutes. All interviews were saved in audio format and transcribed. Braun and Clarke's (2006) phases of thematic analysis were followed (familiarisation; coding; constructing themes; reviewing themes; defining and naming themes). This approach was used due to its flexibility and established validity. Thematic analysis is a well-established means of analysing participants' thoughts and experiences. An inductive approach was adopted to allow for open exploration of codes and themes. Firstly, to familiarise researchers with the dataset, interview transcripts were read in full (HL) and initial ideas were noted down. Secondly, line by line coding was conducted, with data of a similar concept grouped into initial codes. Interrater reliability was ensured through two open coding sessions with five researchers in total (BG, HL, TF, SC, DOC), demonstrating high intercoder reliability across three individual interviews. Codes were then sorted and classified around a core commonality and collapsed into potential themes. Saliency analysis of themes involved consideration of the frequency of data within the theme, but also included novel data which were considered of particular relevance in answering the research question.
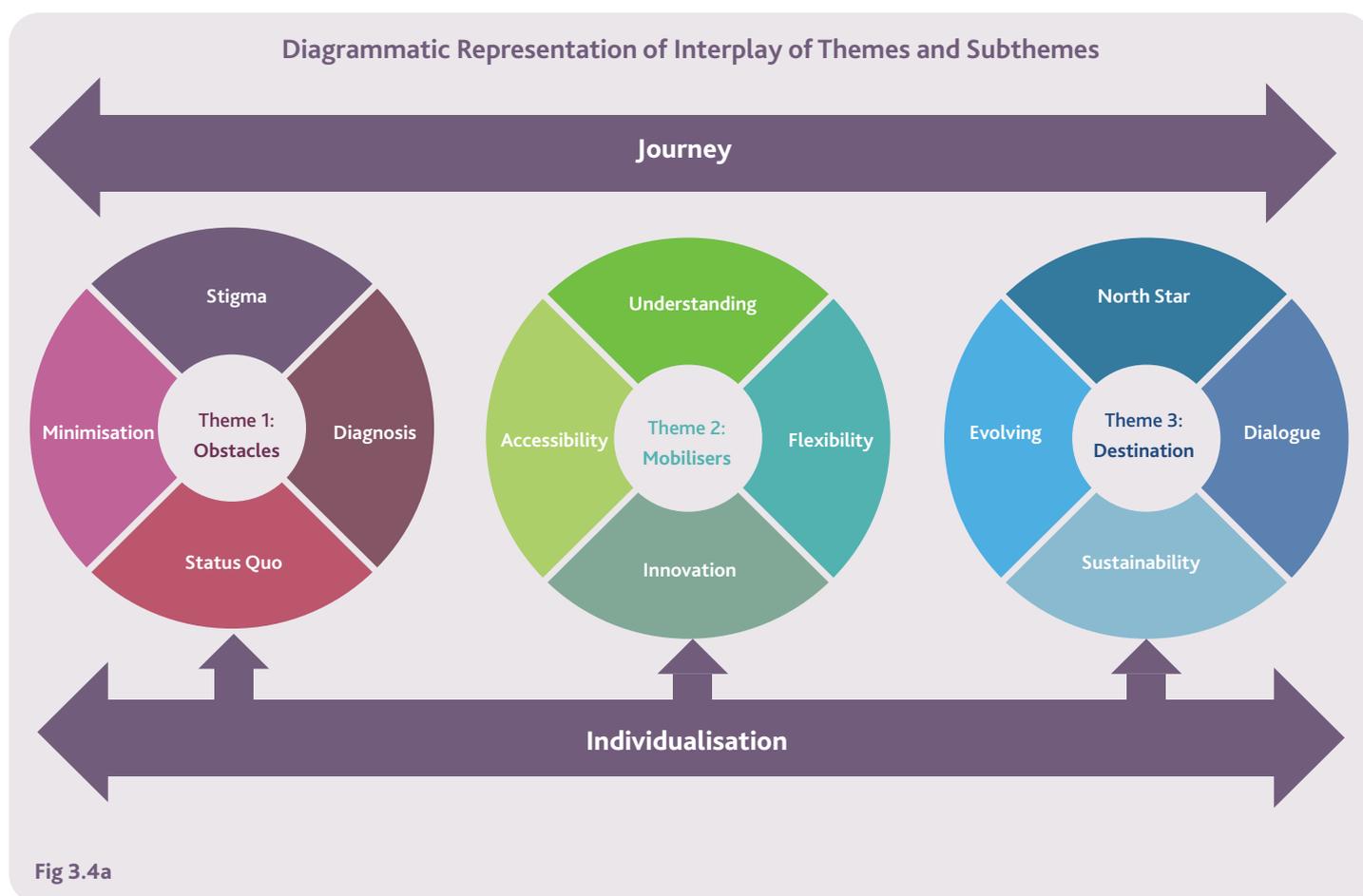
Results

Thematic analysis led to the identification of two overarching themes, three themes and 12 subthemes. Four subthemes were identified within each theme as listed below in Box 3.4a.

Box 3.4a Themes		
Overarching Theme	**Themes**	**Subthemes**
Journey	Obstacles	1. Stigma
		2. Diagnosis
		3. Minimisation
		4. Status Quo
	Mobilisers	1. Accessibility
		2. Understanding
		3. Flexibility
		4. Innovation
Individualisation	Destination	1. North Star
		2. Dialogue
		3. Evolving
		4. Sustainability

In the following section, the key themes and subthemes arising from the analysis are outlined and illustrated by select quotes from participants. A schematic of key themes and subthemes and their interrelationship is also provided in Figure 3.4.a: Each of the themes identified in Figure 3.4.a are interrelated. For example, the barriers to progress (theme 1: obstacles) can be understood as amplified/decreased by the extent to which factors which drive and support change are in place (theme 2: mobilisers). The interplay of these two factors (obstacles/mobilisers) directly influences the quality of the outcomes achieved (theme 3: destination). Participants frequently highlighted their perspective that UCD was on a neurodiversity journey. This characterisation of a journey representing the progress/transformation within UCD in relation to neurodiversity was noted to apply across themes and subthemes, for example, obstacles such as stigma and maintaining status quo as well as mobilisers such as flexibility and innovation, in addition to the 'endpoint' of evolving, sustainable change. Given that the narrative of a journey cut across all themes/subthemes, it is designated as an overarching theme framing participants' accounts. The second overarching theme

identified in participants' narratives was the need to foreground the individual in all aspects of this journey, in many cases reflecting the personal journey, perspectives and preferences of the student/staff member, intersecting with the journey of the University as a whole. This can be readily understood when considering the varying perspectives and needs of a recently diagnosed autistic student new to college compared to a student who has had lifelong awareness and supports versus a longstanding staff member with a recent diagnosis. The reality that priorities and needs shift and evolve dependent on myriad interacting factors including everchanging personal, professional, and sociocultural contexts was particularly highlighted by participants emphasising the prerequisite for individualised understanding. As such, participants stressed that while universal approaches are the bedrock of inclusivity and accessibility, this does not preclude the absolute need for personal, distinct inputs, the nature of which are likely to vary over time. As represented in Figure 3.4.a, this overarching theme of individualisation underpins all aspects of neurodiversity across the UCD community.

Diagrammatic Representation of Interplay of Themes and Subthemes

Journey

Stigma
Minimisation
Theme 1: Obstacles
Diagnosis
Status Quo

Understanding
Accessibility
Theme 2: Mobilisers
Flexibility
Innovation

North Star
Evolving
Theme 3: Destination
Dialogue
Sustainability

Individualisation

Fig 3.4a

Stigma

Minimisation
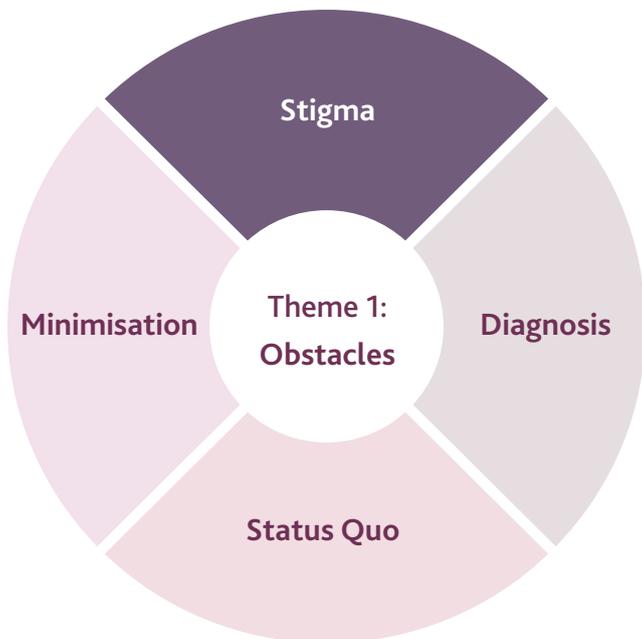
Theme 1:
Obstacles

Diagnosis

Status Quo
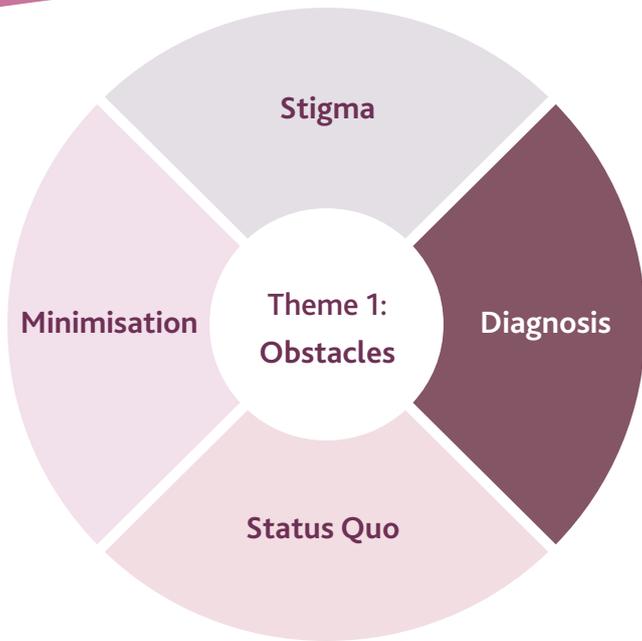
Theme 1: Obstacles

Subtheme i: Diagnosis

While diagnosis was associated with challenges for both staff and students, the practical difficulties that arose were different. For example, the requirement for a formal diagnosis was particularly problematic for students relative to the concerns experienced by staff in this regard. This related to a number of factors including practicalities such as cost and availability of assessment, together with the negative emotional and financial impact for those who had to access repeat assessments to satisfy university requirements. As such, participants underlined the unnecessary negative impact of having to meet the university requirement for diagnosis despite in some cases already having one. The absence of available assessment capacity within the educational and health sector was stressed with some participants highlighting a potential role for the University in the provision of same. Participants felt there was an onus on the University to circumvent this unnecessary and burdensome financial and emotional outlay. In contrast, issues for staff relating to diagnosis were dominated by concerns relating to the knock-on impact of diagnosis in respect of confidentiality, stigma, rights to accommodations and perceptions of coworkers:

> *The bar to get accommodation is insanely high. It doesn't acknowledge self-diagnosis is validated anyway."*

> *I was already diagnosed with dyspraxia when I was about five or six. I then had to have a, go to another educational psychiatrist to get the Dare because in order to push it enough."*

> *I guess is often the kind of difficulty when you have invisible disabilities or kind of invisible neurodiversity, at times, the aspects of it don't feel like kind of justifiable reasons and that unless they are labelled with something."*

> *Their [staff] attitude however is that it doesn't exist unless they can see it in front of them."*

> *Because a lot of the time when they would hear it has a label on it - it made it like, right, yeah, I get you, I get you, okay, that's fine."*

> *And I thought you know it might be good to get this on paper, or at least get it checked out. Because you can't access most of the supports unless you have a formal diagnosis."*
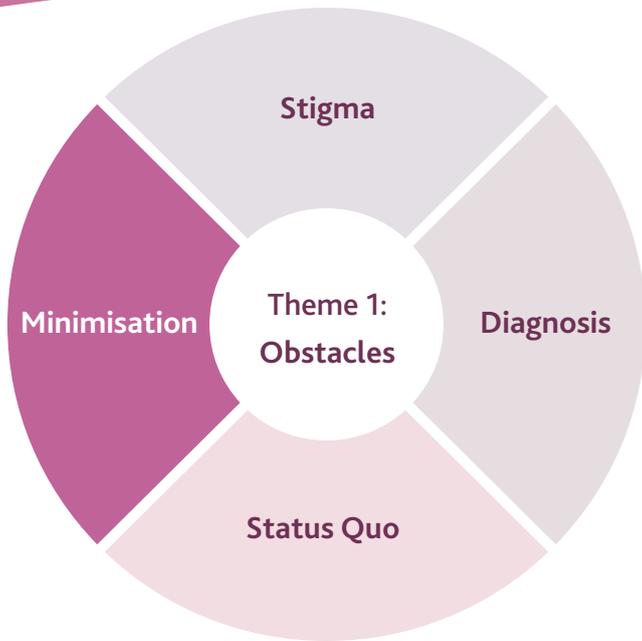
Theme 1: Obstacles

Subtheme ii: Stigma

Stigma in its many forms was identified as a frequent obstacle. Staff and students highlighted that the consequent fear of discrimination often prevented people from engaging with the supports to which they were entitled, leading at times to further stress and unnecessarily effortful work. Participants also highlighted the important role of multiple strategies to decrease stigma including awareness campaigns, staff training, and increased visibility of neurodiverse staff and students:

> " *But certainly ADHD and the likes of dyslexia are still stereotyped as illnesses, or disabilities that make someone a bad worker. And a bad learner. And that's not a label you want to have".*

> " *If I don't act in a way that's been socially prescribed am I going to end up you know being with a performance plan in place"*

> " *Still a fear of retaliation…if I act a certain way is something going to happen?"*

> " *like it could be weaponised against you for some things."*

> " *There's the very true fact that once you've been put in that box, you'll be very likely to face discrimination based on it. I would never disclose my ADHD at work. If I was looking for supports from a lecturer, I would probably not name it. I would say need some extra support with organisation or something"*

> " *and there have been students who have been in desperate need of support but don't want to go and get it…they would have a fear of stigma attached to it"*

> " *If I don't act in the way that's been socially prescribed am I going to end up you know being with a performance plan in place."*

Stigma

Minimisation
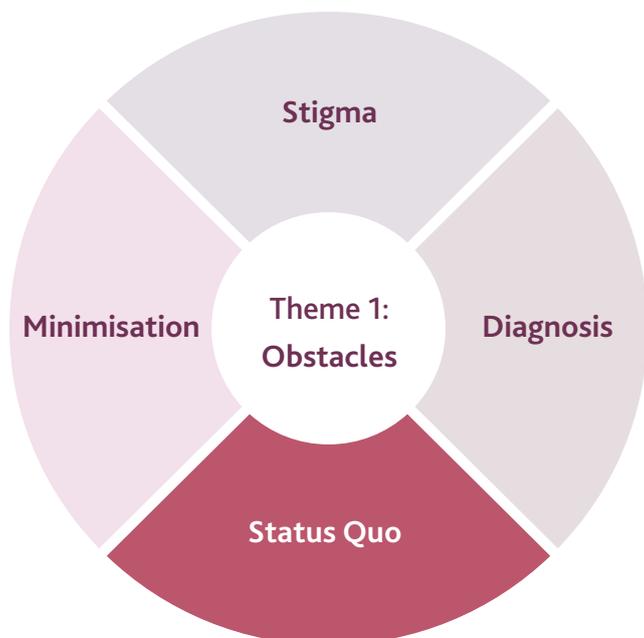
Theme 1: Obstacles

Diagnosis

Status Quo

Theme 1: Obstacles

Subtheme iii: Minimisation

Participants described 'quietly coping', trying to navigate challenges on their own, in many cases feeling compelled to adapt their environment to their needs without external support. For some, this in turn negated the requirement for others/'the system' to acknowledge and cater to additional needs. This was ultimately seen to facilitate a 'downplaying of the problem' creating a vicious cycle wherein if there is not seen to be adequate need, system responses will not encourage disclosure. This minimisation enacted by self, others and the system was identified as amplifying struggles and, for some, it compounded a sense of alienation.

> *Because of my dyspraxia it meant that I didn't really have as much of a ground to stand on with this and it was a very kind of slow process, And kind of looking back and saying yes, I wish I had asked for help a lot more often and rather than just struggling in silence."*

> *So I think there are a lot of people who are silent about this and they are coping by things that they shouldn't be coping about."*

> *That is all the mask, that's the mask, that is how I push away the chaos, that is my actual internal state, by organised my external environment."*

> *Things that are extremely uncomfortable I have masked to pretend that I am feeling comfortable with the situation even when I am not. And suffering the consequences because (laugh) everything has a price in the end and it has a huge toll"*

> *You develop these kind of compensatory kind of adaptations that help you get through and negotiate the world of work. But they don't mitigate it completely."*

> *They are working from home. Or they are taking a four day week, or whatever. But the reason for that is not because they want to stay home or not be in UCD. The reason for that is that that is their coping mechanism for neurodiversity you know."*

Stigma

Minimisation

Theme 1:
Obstacles

Diagnosis

Status Quo

Theme 1: Obstacles

Subtheme iv: Status Quo

An atmosphere of inertia at every level of the system was identified by participants as a major obstacle to progressing the innovation required. Myriad issues were considered against this backdrop relating to factors as disparate as the built and digital environment to teaching and assessment. Siloed systems across the University 'which seemed not to talk to each other' were deemed to mitigate against efficient action both at individual and organisational level. One of the most fundamental negative impacts of this was that it was seen to make the journey to access required supports for both staff and students unnecessarily cumbersome:

> *There can be for example a lack of clear instructions, there can be a lack of awareness for sensory issues, sensitivity to light, noise, heat. There can be a lack of concern or even awareness with regards to crowds, noise, all these things."*

> *I think there's a big deficit in the employee supports, you know the counselling supports I think could be really helpful for people."*

> *I was wondering if there was actually particular staff supports and I didn't find it quite easy to find.""*

> *But I suppose as a PhD student, I suppose those accommodations, the other accommodations that I had for my masters. They're not really applicable to me anymore. And certainly not from I suppose more of a staff perspective either."*

> *And you know in the same way I suppose, you know obviously our institutions are predicated on some ideal student and ideal professor"*

> *Because those systems (portals)are not, they're not friendly…especially for people with executive dysfunction…I would almost go so far as to say they are hostile to use."*

> *It felt like they had to go out of their way, it wasn't just a done thing, it always felt like I had to go out of my way, I had to contact somebody else at the Centre or to get a laptop."*

> *Slides is a big thing, you know just white background, black font is horrendous for anyone to look at, its horrendous for us to look at when we don't have a specific diagnosis. But to try and actually pay attention to it when you're constantly barraged with sensory input that you can't quite filter, is horrible."*

> *I can kind of be quite sensitive to light and brightness. And there's a lot of, a lot of the rooms there, the tables are all white and the walls are white. And the lights are those kind of big sort of factory style ones. So it's extremely, I find that quite difficult."*

> *It's a case of me having to adapt to them as opposed to trying to force them to be whatever I expect them to be."*

> *I think that power tends to assume that if you don't complain everything is ok. I think we need to ask people to complain without consequences."*
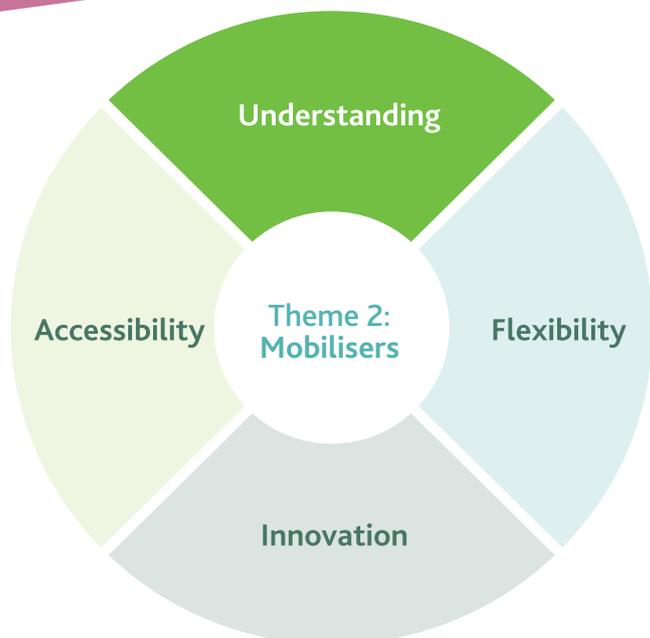
Theme 2: Mobilisers

Subtheme i: Understanding

An expectation that all staff understand the basic concepts of neurodiversity and attendant accommodations was seen as essential. However, it was deemed crucial to move beyond this modest obligation with some participants further highlighting the dangers of tokenistic 'understanding'/actions. The value of *authentic understanding* was highlighted. To be deemed 'authentic' participants saw coupling action to understanding as key. That is to say, moving beyond a focus on 'awareness raising' at organisational level to enacting change and ensuring staff and students are 'met where they are at' at an individual level. 'Feeling seen and heard as an individual' was deemed particularly significant. Similarly, the understanding that differing needs required different types of approaches was seen as paramount. A capacity for flexibility at an individual and organisational level was understood to be central to this process:

> " He organized a meeting with all of us and he was just like, you know, if you need any, like if there's any problems you can come and like talk to him and I found that really helpful and I did do that. So having that sort of academic like, you know, relationship was really good."

> " It was such a smooth process and every member, it felt like they actually cared, which was a really kind of welcoming part, it made it much easier, it's the feeling of, I actually care about this person, I'm actually willing to be here to help, it's not like another day or it's like every person."

> " If its part of the counselling service you know they might be able to have more of a file on you, you know what I mean they could keep track of how you're progressing and things like that."

> " Or having someone check in on the people who are maybe struggling to see how they're doing"

> " Yea I'll say the, any teaching staff have always been brilliant. That's always been where I get the most support and have felt you know that it's made the biggest difference in my ability to participate you know."
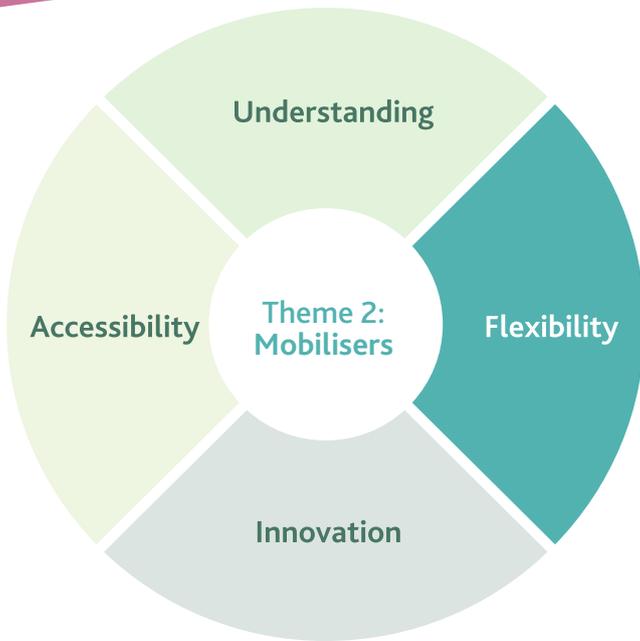
Theme 2: Mobilisers

Subtheme ii: Accessibility

Accessibility in all its forms was seen as indispensable by participants. Within this consideration, participants highlighted issues relating to multiple facets of accessibility including: the built and digital environments, access to diagnostic processes, supports and services and the development and enactment of policies and procedures to underpin these processes. Moreover, access to the University itself and the inadequacies of the processes to support student access (such as DARE) were emphasised together with staff recruitment. These dimensions of accessibility were seen to impact staff and students differently. However, easy to access, approachable and responsive systems that have capacity to meet the person where they are at (as was also a critical component of authentic understanding described above) were deemed to be essential by all. In addition, there was a strong sense across both staff and students, that accessibility is predicated on making information more readily available across the UCD community (and indeed the broader community to attract neurodiverse students and staff). Furthermore, the adequate resourcing and design of systems to support accessibility across all its facets was deemed fundamental. Participants highlighted experiences characterised by inaccessibility to illustrate both the challenges this caused, as well as demonstrating the benefits of ensuring systems are accessible in practice to all users.

> " It felt like they had to go out of their way, it wasn't just a done thing, it always felt like I had to go out of my way, I had to contact somebody else at the Centre or to get a laptop or to."

> " We need and expect to be active towards this particular cohort before they even come on campus, to say we are absolutely adhering to the needs that you have. And that we absolutely welcome you as one of our students."

> " Even a courtesy email, even at the start of like each, the first lecture of the semester saying, hey, if anyone has any aspects that they're from, you know, someone who's possibly at the Maths Centre or, you know, whatever, getting supports from that, if you need any help, let me know, you know."

> " One of the things we could do exactly is invite those neuro diverse students for individual tours and let them feel comfortable straight away."

> " The main thing I took away from it was how open they were, it was a central location in the library, it's a very central place on campus, it wasn't halfway out, like somewhere on the campus so it's very awkward to get to."

> " It is my belief in accessibility that like anybody who's neurodivergent and the accommodations we give to them should be universal."

> " That there is in a way almost a universal design message for those people and that they do not have to seek out support, that the support is built in."
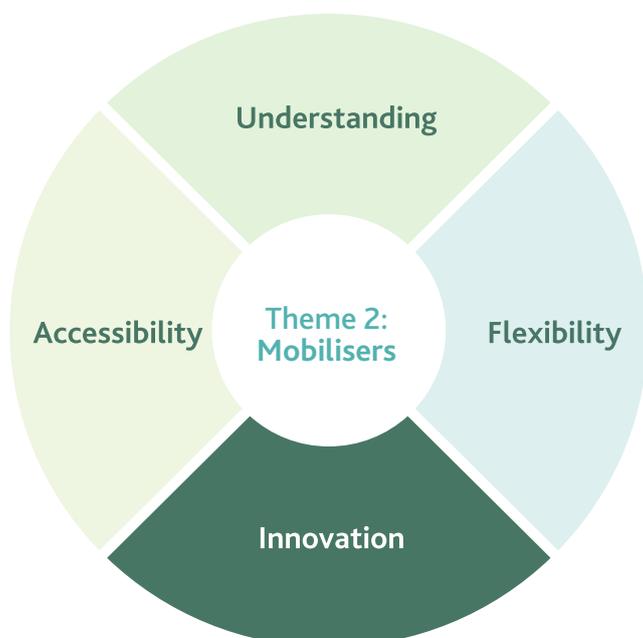
Theme 2: Mobilisers

Subtheme iii: Flexibility

Participants highlighted that a truly effective organisation by necessity would be nimble enough to respond to both the changing sociocultural context of neurodiversity as well as to individual need. Flexibility to individual need once again was identified as integral to a truly authentic neurodiversity friendly campus.

> " *I think it would be good to have maybe somebody, whether its in kind of the counselling services or the kind of wellbeing team that maybe has a little bit more education and training on people with neurodiversity."*

> " *Some students would prefer to engage with us virtually, that's again one of the features that we've learned through the pandemic, is that we maintained the ability that students when they're meeting a Careers Officer can select, do you want to do this by Zoom, do you wanna do this by, in person."*

> " *But even to have a diversity of assignments I think would be very helpful for people. Because it's this universal design thing you know. If it's all essays and the people who do well are going to be ones who are good at essays."*

> " *To have some way of where can engage with things on their own terms. While still having the possibility of structure as needed is helpful".*

Theme 2: Mobilisers

Subtheme iv: Innovation

Integral to the requirement for organisational flexibility, participants stressed the need for innovative approaches to neurodiversity. While participants underlined their understanding of how large institutions can be slow to enact change, the organisational capacity to react dynamically to a changing landscape was identified as critical to the process of becoming neurodiversity friendly. COVID was identified by participants as an exemplar of how major change can be enacted quickly and effectively when conditions make it necessary, and motivation is sufficiently high. Innovation in relation to developing adaptable, reactive processes was also highlighted by participants. This related to a need to streamline the extenuating circumstances process to avoid unnecessary barriers within the system, improve information sharing and to enhance accessibility to avoid additional unnecessary pressure on students endeavouring to access extenuating circumstances at points of significant stress.

> *During the pandemic I think UCD stepped up and in terms of its HR policies."*

> *Whereas if you think about it we were a lot more accommodating, you know during Covid. And that was good for neurodivergent people".*

> *Sense of direction is a real problem for me. So someone gives me directions and I know looking at them I've already lost you. They had green, blue, yellow and red things stuck on the ground, so someone said just follow the blue one, that was great."*

> *I think, I think a lot of people have become aware of this through COVID, whether by simple because of the change in conditions and then the change back to so-called normal conditions, we've had a way, we've had a chance to step out and step in".*

> *I think also given Covid, there was a lot of attention paid to how to best integrate with everyone's lives you know."*
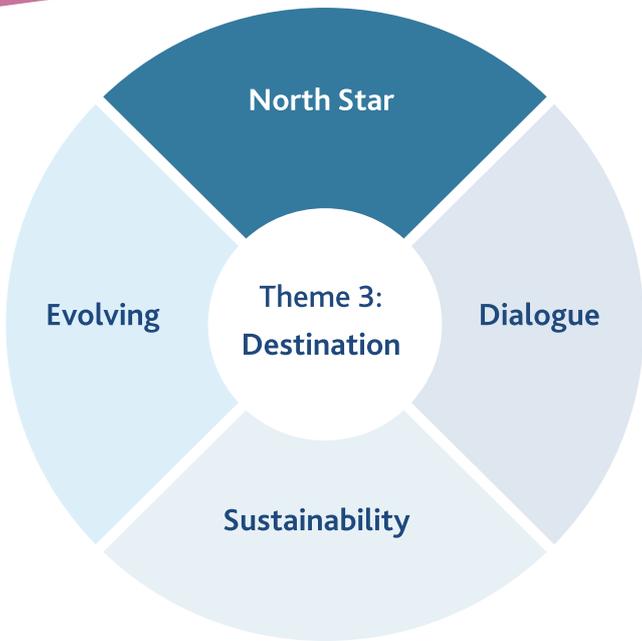
Theme 3: Destination

Subtheme i: North Star

Participants highlighted distinctive aspects of their UCD experience which they saw as extremely supportive and positive, illustrative of where they thought the University should aspire to be for all staff and students. As such, these encouraging experiences, in addition to the multiple examples of innovation, best practice, individual leadership and commitment across the University community, were seen to represent a beacon of the possibilities of UCD's neurodiversity journey both within and beyond its campus. Participants saw *authentic* inclusivity for all as essential to the University's capacity to act as a *North Star and* again highlighted what they saw as crucial to this process, i.e., moving beyond an awareness-raising phase and prioritising actions.

> " It was very welcome coming to UCD and especially with the Access Programme and working with the Access leaders and things and then even just like how it was just sort of a common thing, it was just the done aspect of it, …. you know, and like that was a really kind of welcome aspect of it."

> " It's the feeling of, I actually care about this person, I'm actually willing to be here to help, it's not like another day or it's like every person, they feel very eager to kind of help and things, which is very welcome

> " All my experiences with the Access have been really positive, especially because I… you can just pop in, ask one of the staff or something and be gone in five minutes…it was such a smooth process and every member, it felt like they actually cared, which was a really kind of welcoming part, it made it much easier"

> " I then went to the Access Centre and one of the staff there and they talked through all the aspects of it…like it was a very kind of different experience being asked, hey, what supports do you need, being given to you, you know."

> " I haven't even mentioned the student advisors were very, very helpful for me as well. In undergrad and in the masters. I think they're exceptionally helpful because they are people who have that institutional knowledge about what goes where."

North Star

Evolving

Theme 3:
Destination

Dialogue

Sustainability

Theme 3: Destination

Subtheme ii: Sustainability

Participants highlighted that sustainability was key to success in the design and implementation of any neurodiversity initiatives. This was reflected across multiple aspects of the University experience - for example, supporting staff and students at key transition points such as entering and leaving University. Many participants also highlighted that effective support must be both flexibly and consistently available to students and staff throughout their time within the University. To underscore this point, many participants contrasted their initial positive experiences of supports with disappointment at lack of follow-through and maintenance of supports thereafter. Participants emphasised that sustainability was predicated on the adaptability of the system and scalability of the support:

> " *I guess it is something that I do think about sometimes about life, there isn't an Access Centre after college."*
>
> " *I've had all these supports and I've never had to worry about spelling, but then in real life, like you do, like if you send an email and it's got, and it's spelled incorrectly, people judge that or, you know."*
>
> " *Outside of UCD a different story altogether you completely keep quiet about it if you have just deal with it"*
>
> " *Before university I suppose the main thing that I struggled with in, when I got into college, which I mean I struggled with during secondary school as well, was the social side of things. So I found it extremely difficult to make any friends."*
>
> " *Would be if there was some kind of like support network or something. I suppose that's one thing that I would've found really helpful in my undergrad as well. If there was some sort of a group of people who were, or weren't registered with the disability office. Who maybe were struggling to make friends and would like to make friends with other people."*

North Star

Evolving

Theme 3:
Destination

Dialogue

Sustainability

Theme 3: Destination

Subtheme iii: Dialogue

Participants emphasised that open dialogue was a crucial element to creating a neurodiversity friendly campus. Effective communication about neurodiversity was seen as having huge potential including reducing stigma, increasing awareness, normalisation and driving authentic change. Participants outlined a variety of mechanisms which could be developed in the University to support constructive ongoing dialogue on neurodiversity. Participants delineated differing structures depending on the identified aim of the discourse. For example, at the organisational level, participants underscored the value of developing university-wide feedback systems to allow staff and students provide constructive input to an evolving process of change, thus ensuring the voice of those most directly impacted was central. Ensuring the centrality of the voice of neurodiverse staff and students to any policies/practices impacting the community was also deemed critical to enhancing the quality of the outcomes achieved. Participants further highlighted the benefits of providing opportunities for knowledge exchange within specific groups, for example HR and teaching faculty. Finally, the process of enhancing normalisation and a sense of belonging among neurodiverse staff and students was repeatedly emphasised as enormously valuable with the formation of relevant staff and student networks seen as key to this development:

" and yet unless somehow we can have a conversation about this, if it's possible to ignore these things, that is the hurt, not that I want to be differentiated or that -. They say inequality that giving everyone the same is not always, is not equal."

" Maybe having some sort of like neurodiverse panel, like panel discussion or something like that of graduates. Or later year students. So that kind of first years will be like, okay no I can do kind of..."

" Yea and I guess maybe for the counselling service to I don't know how they know about neurodiversity. And how neurodiverse people interact and how that differs to neurotypicals, but maybe if they were kind of a bit more aware there".

" I think there should be a module on neurodiversity for people managers, I do, where, and I think in that module maybe there should be some neurodiverse people that that they could meet."

" But then that's missing for somebody that I manage, who I work with. Not knowing how best to support them, if they need certain supports or even how to bring that up would be really, really helpful."

" ...but I think at the moment the neurodiversity aspect is lacking. In the sense that it would be good to have you know some kind of advocacy, sensitisation and those kind of things."

North Star

Evolving

Theme 3:
Destination

Dialogue

Sustainability

Theme 3: Destination

Subtheme iv: Evolving

Participants recognised the many ways in which iterative change relating to neurodiversity is apparent across the UCD community, from simple awareness of the term neurodiversity to the adaptations of the built environment already in place:

> " *They might look at things as fads or the emergence of oh everybody has ADHD"*

> " *Once you become sensitised to a topic or a term. You become more aware of it in your surrounding as well."*

> " *I am conscious I need to up my own game in terms of developing my knowledge around neuro diversity."*

> " *I suppose then even from a staff perspective as well. Like I mean if there was some sort of group of neurodivergent academics or something. Because I suppose the way it is now I suppose it's kind of. I don't really see many people talking about it."*

> " *I do think the university could make it easier for staff and students to have the conversations, to access supports, to get the information."*

> " *We need and expect to be active towards this particular cohort before they even come on campus, to say we are absolutely adhering to the needs that you have. And that we absolutely welcome you as one of our students."*

> " *Some students would prefer to engage with us virtually, that's again one of the features that we've learned through the pandemic, is that we maintained the ability that students when they're meeting a Careers Officer can select, do you want to do this by Zoom, do you wanna do this by, in person."*

> " *There is a trend in UCD to move everything into open plan offices and I just think, I don't know if that's a good idea."*

> " *…but I think at the moment the neurodiversity aspect is lacking. In the sense that it would be good to have you know some kind of advocacy, sensitisation and those kind of things."*

The constructs emphasised within this subtheme in many ways mirrored the overarching theme of a journey towards an aspirational outcome (a truly neurodiversity friendly campus), albeit with subtle distinctions. Participants again noted that sociocultural factors are influencing the current, and will likely influence the future, characterisation and acceptance of neurodevelopmental conditions, framing the concept itself as evolving. Echoing an evolving appreciation and awareness of neurodiversity, participants outlined that expectations of how their needs would be met and accommodated were likely to evolve over time. Participants also highlighted how progress may be incremental at some stages of this evolution, and more dramatic at others, with the COVID pandemic again cited as an exemplar of how change can be accelerated in extreme contexts. Finally, participants pointed to the need for a constantly evolving 'destination' or endpoint; that is to say, as the context of neurodiversity within UCD shifts with likely growth in staff and student numbers over the next number of years, together with increased recognition of need and the expectation of same, ongoing adaptation by the organisation will be required to meet these shifting patterns of need.

Sensory Audit

Work Package Lead	Blánaid Gavin
Work Package Team	Kim Lombard, Lisa Murnane, Sue Philpott, Olalekan Popoola

Introduction

This section will report on the sensory audit which was completed with the aim of identifying how the built and digital environment in UCD is experienced in the context of neurodiversity. In addition to the Stage 5 sensory audit, sensory barriers were also explored in the Stage 3 survey of staff and students. To provide a comprehensive picture of the data, both study elements (Stage 3 and Stage 5) relating to sensory profiles are considered here.

Methodology

The audit tool was specifically developed for this study. The topics included were informed by data from previous stages of the project together with key areas identified in a review of available tools/guidance including:

- Checklist for Autism Friendly Environments (NICE-endorsed).

- British Standards Institution Design for the Mind: Neurodiversity and the Built Environment Guide.

- Neurodiversity Hub Enabling Spaces Resources.

- BBC Resource for Creating Positive Environments.

The audit tool was subdivided to cover the built and digital environment separately, with the built environment further divided into indoor and outdoor spaces. Dependent on the area of focus, questions centred on sensory experiences related to layout, signage, décor, lighting, temperature, and auditory, tactile, and olfactory experience. The audit methodology was such that any issue highlighted by an individual participant was captured. A draft of the audit was distributed to the working group and relevant stakeholders for feedback before finalisation.

For ease of completion, the finalised version of the audit was developed as an online tool and was deployed for completion between April 17th and 28th 2023. This timeline was chosen to capture a busy period on campus. It was distributed online to a convenience sample purposively selected to include neurodivergent participants. Each participant could choose any site/s across campus which they wished to audit.

Results

Time taken to complete the audit tool was highly variable and dependant on the chosen site/s. A total of 15 audits on buildings, 9 on open spaces, and 7 on digital spaces were included in the results. The survey question was structured as 'tick all that apply', and elicited 652 responses in total, in addition to open text that was subject to thematic analysis.

Commonalities were evident between the audit results and questionnaire data, as well as between staff and students' reported experiences of sensory barriers in the built and digital environment. Box 4.1 outlines the audit results in more detail while a more comprehensive outline along with illustrative quotes can be found in Appendix 5. The remainder of the section presents further information on the survey responses, followed by illustrative quotes from staff and students.

Built Environment

Concerns in the built environment related to the layout, signage, lighting, and auditory experiences. An additional auditory barrier highlighted by staff related to the impact of open plan working environments. The layout was not seen as predictable and logical or based on clean lines, and the environment was not seen as amenable to those who seek/require movement. Indoor settings were not found to be easy to navigate with inadequate space between furniture. The presence of clutter/unnecessary obstruction was also highlighted. There was reported to be a lack of indoor or outdoor spaces to 'escape to' or screened off areas/spaces that were quiet. A lack of designated sensory room/quiet spaces across the audited areas was also evident from auditor responses.

Digital Environment

The digital environment presented concerns for staff and students regarding navigation, layout, and accessibility. This included the presence of unnecessary content, the use of colours, patterns and symbols, and the typeface being difficult to read. Inconsistency in the use of accessibility features in Brightspace was also noted. Staff also highlighted the overuse of e-communications within the University, while students noted difficulties with the 'readability' of digital content. Students additionally highlighted challenges regarding learning materials and resources being made available by teaching staff in a timely and complete manner.

Box 4.1: Sensory Audit Key Findings

Built Environment		

Layout	1.	Lack of
		  a. predictability and logic of the building.
		  b. screened off areas.
		  c. spaces which are quiet.
		  d. designated sensory rooms/quiet spaces.
		  e. indoor (and to a lesser extent outdoor) spaces to escape to.

Light	1. 2. 3.	Notable presence of fluorescent lighting. Inability to alter light intensity. Illumination in rooms was not always suitable, glass meeting rooms were not always fitted with blinds.

Décor	1.	Lack of:
		  a. Natural materials.
		  b. Indoor plants.
		  c. Water features.

Signage	1. 2. 3.	Signs are generally not easy to understand. Signs are not supported by use of symbols/pictures. Lack of clarity in room designation/usage.
Auditory	1. 2. 3. 4.	High level of background noise. Sounds from crowded spaces. Sounds from flooring/footsteps/squeaky chairs. Sudden loud noises/traffic.
Olfactory	1. 2.	Presence of unexpected odours, unexpected food odours, unexpected odours from paint or building materials, and odours from labs or other practical rooms. Toilets were not always sited away from work areas.
Tactile	1.	Seating materials were not smooth and soft, and there was use of materials that caused pain, distraction, or discomfort. Open text responses indicated issues more related to discomfort and distraction i.e., "...high chairs uncomfortable and squeaky…", "...high back study pods and some high back individual chairs but these are located next to the window next to a lot of visual stimuli outside of the library".

Temperature	1.
	2.
		Uncomfortable temperature.
		Lack of:
		  a. ability to control or alter temperature.
		  b. natural air.

Box 4.1: Sensory Audit Key Findings(cont.)

Open Spaces/Areas	
Layout	1. Layout not predictable and logical. 2. Spaces being difficult to navigate. 3. Presence of unnecessary obstruction. 4. Sensory overload and lack of access to quiet spaces.
Signage	1. Signs were not deemed as easy to understand. 2. Lack of use of colour coded symbols.
Auditory	1. High level of background noise. 2. Sounds from crowded spaces. 3. Sudden loud noises can be heard.

Digital Environment
1. Concerns related to predictability and logic of the layout. 2. Sensory overload relating to colour, layout, and patterns/symbols. 3. Lack of specific content/functionality that accommodates neurodiversity. 4. Unnecessary content. 5. Typeface not easy to read. 6. Inconsistency in use of accessibility features on Brightspace.

Do you experience any sensory barriers in the UCD physical and/or digital environment?

If yes, please tick all that apply.
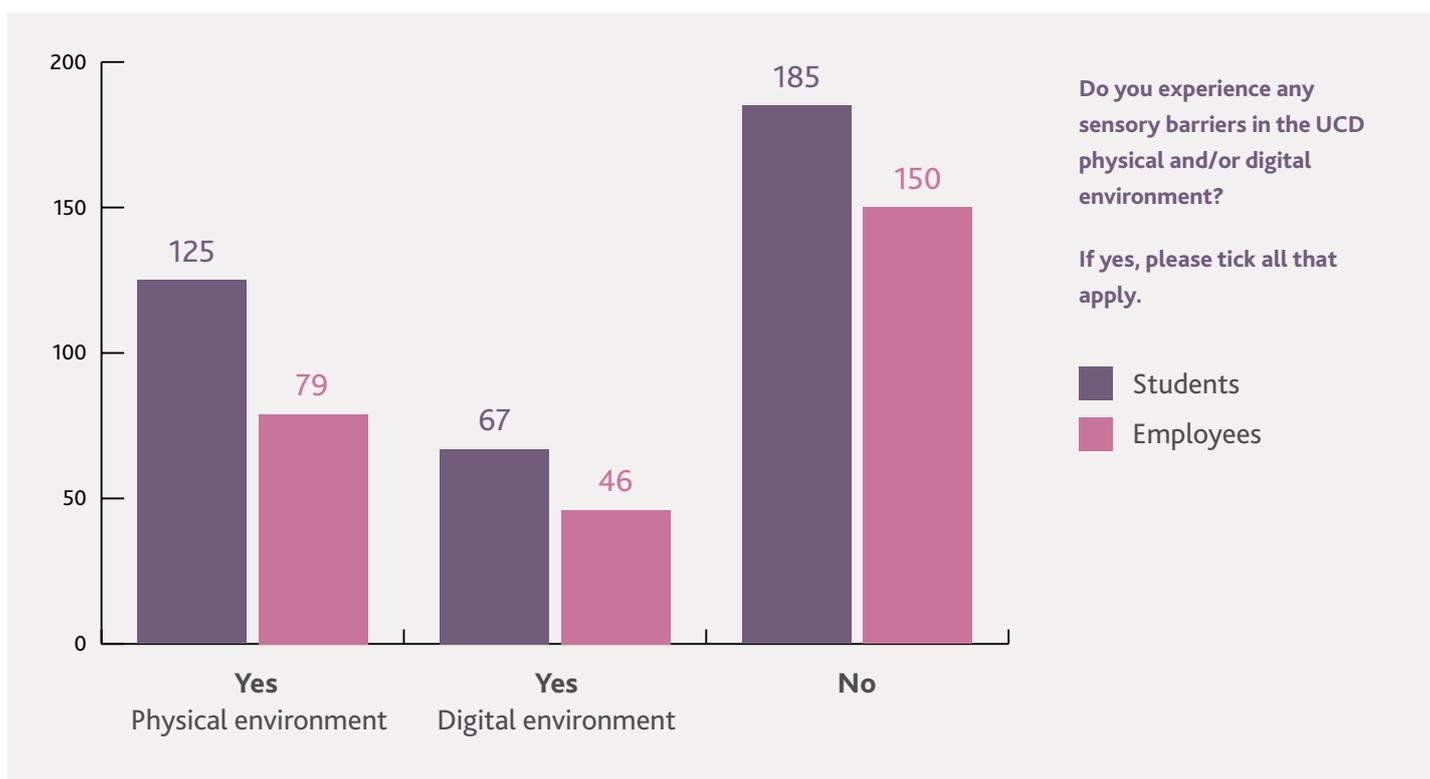
- Students
- Employees

Figure 4.1: Staff and students who indicated experiencing sensory barriers in the UCD physical and/or digital environment.

Physical Environment

Participants noted the lack of quiet and/or sensory spaces as well as the impact of crowds. In addition, staff and students alike outlined concerns about accessibility, with particular reference to hazards. Illustrative quotes are presented below:

> " *I get really stressed and overwhelmed in crowds. I find it hard being so physically close to people. Everywhere is too loud and too many fast movements. I have a headache at the end of the day if I'm on campus for more than a few hours and often have a meltdown or shutdown by the time I get back to my safe space at home. I crave meaningful social interaction but find the environment so distracting that I can't even concentrate on what people are saying to me when I do find someone to talk to.*"
>
> *Student*

> " *In addition, the wheelchair assisted doors are frequently not working in buildings.*"
>
> *Staff*

> " *The pathways along the strip by xxxx are extremely uneven and with dcdit makes me extremely vulnerable to an accident*"
>
> *Student*

> " *Fire doors are EXCEPTIONALLY difficult for those who are less able, and make moving around campus *painful**"
>
> *Staff*

> " *There is not enough quiet space on campus for staff members if they work in shared offices.*"
>
> *Staff*

Light: Concerns largely related to fluorescent and bright lighting. Illustrative quotes from staff and students are presented below:

> " *(Context: I have fairly extreme sensory sensitivity) I can't really see in most of the xxx building because it's too bright, lots of disorienting light reflection.*"
>
> *Staff*

> " *I have is a lack of windows to the outside world in my work space, no natural light/view to the outside world is difficult for me*"
>
> *Staff*

> " *The lights are painful.*"
>
> *Student*

> " *There is also far too much fluorescent lighting used throughout the campus despite many years of research pointing to the sensory stress and overload this can cause for people with neurodiversities.*"
>
> *Staff*

> " *a lot of harsh fluorescent lighting that is difficult.*"
>
> *Student*

Auditory: Auditory concerns included poor acoustics and noisiness of campus in general. The noise level and acoustics in lecture halls, classes and office spaces was also specifically highlighted. Illustrative quotes from staff and students are presented below:

> " *The acoustics of many of our buildings significantly impair my ability to understand people talking.*"
>
> *Staff*

> " *Open plan office. Who's idea was that.*"
>
> *Staff*

> " *building design: lots and lots of echoing, library is noisy, study spaces are not quiet, doors slam, lecture halls are not sound proofed so sounds from the hallway disrupt the lectures,*"
>
> *Student*

Signage: Challenges highlighted included a lack of both standardisation and accessibility of signage. Illustrative quotes from staff and students are presented below:

> " I also noticed that there are not too many visual/other signs at regular distances in campus, which could be useful (like monitors with optional sound or braille) indicating where you are and what buildings are nearby. Our campus is very big and unless you have a phone, a bit difficult to navigate around. Tricky"
>
> *Staff*

> " Numbering systems and signage different across campus. Using multiple names for buildings (e.g. Science vs O'Brien)"
>
> *Staff*

> " the fact that each building has a different system of labelling rooms and floors is incredibly confusing."
>
> *Student*

> " Floorplans of the larger buildings could be provided, online, to allow those with visual impairment to plan their routes."
>
> *Student*

Digital Environment

Layout and Accessibility: Staff and students highlighted difficulty in navigating the digital environment due to issues with layout and accessibility. Regarding accessibility, students identified inconsistencies in the provision of digital learning material. Staff particularly stressed the overuse of e communications. Illustrative quotes from staff and students are presented below:

> " Also would love a dark/night mode for Brightspace etc and for readings it would make a huge difference."
>
> *Student*

> " Fragmented and messy, not joined up. Digital transformation will hopefully address some of these issues."
>
> *Staff*

> " Lecturers deliberately withholding lecture slides, lecture recordings, or certain information from lecture slides."
>
> *Student*

> " The UCD connect page and Brightspace are both too cluttered and difficult to navigate, eg lots of clicks required and organised in ways that don't make sense to me. I never quite worked out how I am supposed to know my timetable and rooms for taught modules…"
>
> *Student*

> " how data is presented - lack of awareness of Universal Design principals in layout, colour, font etc;"
>
> *Staff*

> " Lack of standardisation"
>
> *Staff*

> " I would appreciate more non-visual content (like auditory and also inclusion of subtitles if needed). And an easy How to on the first page to adapt the website settings in case of any visual preference (changing colours of font/background, making font bigger, reading out loud some sections as an option…).
>
> *Staff*

> " Digital environment is good but conversion of documents to audio is a hit and miss exercise."
>
> *Student*

> " Cluttered, disorganized, no cohesive way that the websites function or look makes it fairly difficult to feel secure in the information I'm providing someone, I start to doubt myself in all the clutter"
>
> *Student*

> " Some email communications can be very long and wordy - more difficult to digest or understand for those with some neurodiversity disorders"
>
> *Staff*

Section 4
Conclusion and Recommendations

The Neurodiversity Research Team embarked on a University wide study in 2022 with the aims of exploring the awareness and attitudes of UCD students and staff to neurodiversity, as well as the availability of appropriate supports to students and staff. This was in addition to establishing the extent to which UCD is a neurodiversity friendly campus, and identifying improvements required to enhance UCD's neurodiversity programme. The mixed method approach consisting of 5 stages (scoping review, gap analysis, survey, qualitative interviews and sensory audit) yielded a substantial data set providing multiple areas for further consideration.The scoping review pinpointed the increasing focus on neurodiversity across Higher Education settings internationally and the growing suite of strategies and interventions to support neurodiverse staff and students. However, the scoping review also clearly demonstrated a stark gap in the scientific literature to inform the choice of supportive strategies and interventions employed within the sector. While universal measures were identified as helpful, they were deemed insufficient in addressing all individual needs with a clear requirement for augmented supports and strategies identified. In addition, the amplified challenges caused by intersectional disadvantage such as neurodiversity, gender, race and socio-economic status was emphasised. The gap analysis particularly highlighted the number of policies and initiatives already *in situ* or in development that promote a more neurodiversity friendly campus environment.

...many supports and services in UCD which were well received by staff and students engaging with supports in UCD. However, this was not a universal experience and there was a disconnect between the initiatives in play, and awareness of these...

The survey and qualitative interviews also highlighted many supports and services in UCD which were well received by staff and students engaging with supports in UCD. However, this was not a universal experience and there was a disconnect between the initiatives in play, and awareness of these. Issues repeatedly highlighted related to the fear of stigma/discrimination, difficulties with the physical and virtual environment, inaccessibility of supports and services, and the requirement to raise awareness and educate staff and students about neurodiversity. A requirement to train and educate staff in inclusive teaching and assessment strategies with consideration of neurodiversity beyond Universal Design was emphasised. The recommendations outlined below reflect these key findings in conjunction with known literature. It is acknowledged that there is a lot in these recommendations and that it may not be possible to undertake them all at once. Hence it is suggested that in deliberating the outcome of this research study, each recommendation is considered in terms of its priority, likely impact, and funding requirement and that a sequencing of implementation is crafted that is efficient, maximises visibility and impact and is cost-efficient.

The ethos of neurodiversity is to enact changes to impact the entire campus culture for both staff and students. Reflective of this principle, the recommendations below are framed (where possible and acknowledging that particulars will of course vary) to meet the needs of both groups (recommendation 1-18), followed by recommendations specific to students (recommendations 19-25) and employees (recommendations 26-31).

Recommendations for Staff and Students

1. Establish a UCD EDI Neurodiversity Subgroup to oversee development and implementation of a University-wide action plan.

2. Mainstream and celebrate neurodiversity as core to the University's culture to ensure a sense of belonging across the University community.

3. Review data collection mechanisms to ensure nuanced data on neurodivergent employees and students who have a diagnosis, are awaiting diagnosis/do not have a diagnosis, and what further supports may be required.

4. Ensure representation of neurodivergent stakeholders in user design and development and implementation in policy and practice.

5. Incorporate intersectionality principles in development/rollout of initiatives.

6. Reference & mainstream neurodiversity principles in policies, training & events, e.g. Orientation Week, Open Days, career fairs/expos, etc.

7. Increase visibility and promotion of existing resources and supports.

8. Develop disclosure standards inclusive of need-to-know principles. i.e. review and optimise the communication matrix related to disclosures, streamlining the process for the student/staff, and reducing the need for repeated disclosures to relevant personnel/departments.

9. Widen access to accommodations not predicated on diagnosis.

   a. Engage with HEA & relevant funders to highlight need to adapt disability funding models to recognise the disparity between the prevalence of need for support vs prevalence of diagnosis and the attendant barriers to support access.

   b. Provide guidance and training for managers to mainstream strategies, assistive technology, and flexibilities, where operationally possible, that support neurodivergent staff and can be easily implemented as part of a culture of inclusion and Universal Design.

10. Ensure access to diagnostic assessment, to facilitate access to accommodations if they are to remain predicated on diagnosis.

11. Continue to promote and embed Universal Design principles across University- wide initiatives and as part of professional development such as completion of the 10-week Universal Design in Teaching and Learning Badge, the new 10-week Universal Design Beyond the Classroom Digital Badge and the UCD EDI Training Badge to mainstream Universal Design. Encourage colleagues to engage with University for ALL Faculty Partners and Professional Staff partners.

12. Develop mechanisms to enhance effective engagement with support systems, i.e. connecting the person with the system.

13. Augment systems to enhance supports tailored to individual need.

14. Continue to embed sensory physical design principles into new buildings on campus.

15. Promote existing sensory spaces via wayfinding sensory journey maps, the new NaviLens initiative which is being rolled out across campus 2023-2024 and supportive campus signage and local awareness raising campaigns.

16. Identify opportunities to develop further inclusive sensory physical environment including indoor and outdoor quiet spaces and sensory spaces in collaboration with key stakeholders.

17. Promote and develop an inclusive virtual environment with comprehensive inbuilt accessibility tools.

18. Establish a UCD society for neurodivergent students & an employee network.

Student Specific Recommendations

19. Develop strategies to attract neurodivergent students and review all student pathways to University to ensure they are not unintentionally excluding neurodivergent students. Progess representation to relevant bodies to ensure DARE scheme gives appropriate visibility to neurodiversity. Explore new neurodivergent-friendly pathways as required.

20. Review accommodations and supports provided to all students (undergraduate, postgraduate and PhD) and enhance where required to make them neurodivergent-friendly, e.g. neurodiversity training of peer learning advisors, peer coaching programs to include neurodivergent mentors, etc.

21. Review the extenuating circumstances process with particular consideration of information sharing and ease of access for neurodiverse students. Particular cognisance should be given to scenarios where students are accessing same at points of acute stress.

22. Continue to promote and embed inclusive teaching and assessment approaches (Teaching & Learning). Explore opportunities to enhance flexibility of teaching and assessment approaches.

23. Liaise with UCD Teaching and Learning to explore how the UCD inclusive assessment and feedback framework can be used to support all, including neurodivergent students. Explore development of good teaching practice that supports neurodivergent students in relevant areas e.g. effective, fair, equitable and diverse teaching and learning practices.

24. Provide co-curricular life skills/work-ready skills training for neurodivergent students.

25. Create partnerships with employers that facilitate neurodivergent-friendly work-integrated learning opportunities and work-experience pathways.

Staff Specific Recommendations

26. Develop strategies to attract and retain neurodivergent staff through inclusive and flexible recruitment approaches for neurodivergent job candidates aligned to international best practices.

27. Review UCD Resourcing website to align with principles of Universal Design. Amend the 'Work at UCD' webpage to include a section regarding accessing reasonable accommodations and support, with named supports for neurodivergent candidates in this information.

28. Review orientation, induction, professional and career development supports to ensure these are cognisant and inclusive of neurodiversity.

29. Promote UMAAP[4] and explore professional coaching opportunities for neurodivergent employees as required.

30. Provide role-relevant neurodiversity understanding and acceptance training for all staff and managers.

31. Model UCD as an employer that facilitates neurodivergent-friendly work-integrated learning opportunities and work-experience pathways.

[4] UMAAP- Understanding and Managing Adult ADHD Programme. This is a 6-week workshop series developed as a collaboration between ADHD Ireland, UCD School of Psychology and the HSE's National Clinical Programme for ADHD in Adults, targeted at adults with ADHD who are early in their ADHD journey. (UMAAP - ADHD Ireland)

Section 5
Student Story & Neurodiversity Showcase

This section of the report illustrates examples of innovation and good practice in relation to neurodiversity in UCD. Members of the research team collated accounts from departments and staff across the University that demonstrate events or initiatives aimed at promoting a more inclusive environment.

To begin, the account of a student's experience is provided followed by:

Showcase 1: UCD Membership of The Neurodiversity Hub

Showcase 2: Neurodiversity at UCD College of Health and Agricultural Sciences

Showcase 3: Inclusive Assessment

Showcase 4: School of Agriculture & Food Science: Annual Seminar 2022: : Neurodiversity: What Helps Students?

Showcase 5: UCD Festival 2023

Showcase 6: Neurodiversity Celebration Week at UCD

Showcase 7: UCD Estate Services: Residential Assistants Training

Showcase 8: UCD Library

Showcase 9: UCD ALL: Student Supports

Showcase 10: UCD Alumni

Showcase 11: UCD Research and Partnerships

Student Story

My name is Terry Kerins and I started studying the Professional Diploma in Neurodiversity with the school of medicine in University College Dublin in September 2022. At the time, I had no intention of disclosing my own neurodiversity, having received an adult autism diagnosis the previous year.

From the start, it became very clear to me that UCD was an inclusive and tuned into neurodiversity academic environment. In fact, I was so comfortable in the environment, that I did disclose my Autism diagnosis to the class and lecturers.

The course was structured ideally for me. It was via Zoom, and I could attend the lectures from home. There was a small class size and I found that any time I did request an accommodation, for example, for presentations, my preference would always be to "get it over and done with" early in the session. Once I explained this, the facilitators were more than willing to accommodate me in this. The lay out of the course was very clear and there was a defined timetable, and any changes or alterations were communicated early and clearly, which made a big difference to me and my need for structure and a plan. This is just speaking about the structure and facilitation of the course. Of course, the content, for me was extremely illuminating and interesting. It has helped me in a workplace setting, where self-advocating has been required. I feel the knowledge that workplaces, such as UCD, have a duty of care to both students and staff who are neurodiverse, gave me the confidence to stand up for myself and to advocate for "reasonable accommodations" which, in fact, were granted and have led to me being happier and more productive and more suited to my role in my employment. I would have no hesitation in studying in UCD in the future, or in recommending the University as a neurodiversity friendly University. I can only speak from the perspective of a remote learner, but I know that both Timmy and Blánaid, from the Neurodiversity course, are working from a roots-up perspective to make the on-campus experience equally neurodiversity-friendly. I was awarded my Prof. Diploma in Understanding Neurodiversity this year and am happy to thank University College Dublin for making it a positive and understanding environment.

Neurodiversity Showcase One: UCD Membership of The Neurodiversity Hub

The Importance of the Neurodiversity Hub Initiative in Creating a Neurodiversity Friendly University
Andrew Eddy: The Neurodiversity Hub

Introduction

By understanding and appreciating neurodiversity, universities can tap into these strengths and create a more diverse and enriched learning community. Neurodivergent individuals often possess unique talents, skills, and perspectives that can contribute significantly to academic, social, and professional environments. To promote inclusivity and support the diverse needs of all students, universities have joined the Neurodiversity Hub Initiative, a transformative approach to creating a neurodiverse-friendly campus environment. Below, we will delve into the significance of this initiative and how it fosters a more inclusive and supportive University experience for neurodivergent students.

The Role of the Neurodiversity Hub

The Neurodiversity Hub Initiative is a multifaceted approach to promoting neurodiversity on University campuses. Such an initiative can play a pivotal role in transforming educational institutions into environments where neurodivergent students can thrive. Here is why it is crucial:

1. Accessibility and Inclusivity: Depending on how it is implemented, a Neurodiversity Hub initiative can be a central hub for resources, support, and advocacy. It can ensure that neurodivergent students have access to the accommodations and services they need to succeed academically and socially. This includes sensory-friendly spaces, alternative exam formats, and assistive technologies.

2. Awareness and Advocacy: The initiative can raise awareness about neurodiversity within the University community. It can educate both faculty and students about different neurodivergencies, reducing stigmatization, and fostering empathy and understanding.

3. Peer Support Networks: It can facilitate peer support groups where neurodivergent students can connect with others who share similar experiences. These networks can provide emotional support and a sense of belonging.

4. Career Development: Collaborations with the careers service can help neurodivergent students transition into the workforce. It can provide guidance on disclosing neurodivergence to employers and advocate for inclusive hiring practices.

5. Research and Innovation: It can support research initiatives related to neurodiversity. This not only contributes to academic knowledge but also helps in developing better strategies for supporting neurodivergent students.

Benefits of a Neurodiverse-Friendly University

Creating a neurodiverse-friendly University through the Neurodiversity Hub Initiative yields several significant benefits:

1. Improved Academic Performance: When neurodivergent students receive the necessary accommodations and support, they are more likely to excel academically, unlocking their full potential.

2. Diverse Perspectives: A neurodiverse campus enriches the learning experience for all students by exposing them to a variety of perspectives and problem-solving approaches.

3. Inclusive Culture: These initiatives promote an inclusive culture where all students, regardless of neurodivergency, feel valued and respected, leading to a more harmonious and supportive campus community.

4. Preparation for the Workforce: By providing career development support, universities equip neurodivergent students with the skills and confidence to navigate the job market successfully.

Conclusion

The Neurodiversity Hub Initiative can play a pivotal role in transforming universities into neurodiverse-friendly institutions. By recognizing and embracing the diverse neurological profiles of their students, universities can create inclusive and supportive environments that foster academic success, personal growth, and a vibrant, diverse campus community. The importance of this initiative cannot be overstated, as it not only benefits neurodivergent students but also enriches the educational experience for all members of the University community, making it an essential step toward a more inclusive and equitable society.

NEURODIVERSITYHUB

WHY DO WE NEED THE NEURODIVERSITY HUB?

There are hundreds of incredibly talented neurodivergent jobseekers, or students in our universities and TAFEs, who may never succeed in their studies or in the workforce due to lack of opportunities or lack of support and understanding.

The aim of the Neurodiversity Hub is to:
- Support this untapped talent to shine
- Link neurodivergent students and jobseekers with work experience, internships and employment opportunities.
- Establish a pipeline of potential neurodivergent candidates for employers, boosting workforce participation rates.
- Continue establishing the Neurodiversity Hub to build a community of practice with employers, universities and other stakeholders.
- Provide resources and information for employers to better understand their neurodiverse employees and develop approaches to accommodating them and accessing their talent for their businesses.

❶ For neurodivergent students & jobseekers

- Provide programs, skills, resources and experience to ensure neurodivergent students and jobseekers are work-ready, building connections and working for organisations that value their talents
- Assist students in obtaining work experience and internships
- Increase overall employment opportunities for neurodivergent jobseekers

❷ For employers

- Create a pipeline of work-ready neurodivergent talent, that are typically creative, quick learners, task-focused, attention-to-detail orientated or problem solvers
- Access training in how to work more effectively with neurodiverse people, including employees, customers and suppliers
- Provide greater scale and sustainability for neurodivergent employment
- Reduce costs of recruitment, assessment, on-boarding and support

Employer partners include BHP, ANZ Bank, National Australia Bank, Westpac Bank, Deloitte, BankWest, Medibank, IBM, SAP, DXC Technology, GHD Engineering, Dell, VMware, Ultranauts, and Social Cipher. Discussions are occurring with other organisations.

❸ For universities and other partners in the hub

- Provide valuable opportunities for research in the area of neurodiversity
- Facilitate innovation among Hub partners and collaborators

The university members of the Hub:

In Australia: Curtin University, University of South Australia, Macquarie University, Swinburne University of Technology, La Trobe University, Australian National University and University of Tasmania.

In USA: Landmark College in Vermont, Rochester Institute of Technology in New York state, The City University of New York, Drexel University, West Chester University, Carnegie Mellon, Georgia Tech, University of Delaware, Rutgers University, Emory University, Mitchell College, Marquette University, University of Virginia, Bellevue College and The University of Tennessee at Chattanooga.

In England: University College of London

In Ireland: University College of Dublin. Discussions are occurring with a number of other universities.

Research Partners

Research partners include the La Trobe University Olga Tennison Autism Research Centre, Cornell University and University of Haifa.

ℹ **More information can be found at:** www.neurodiversityhub.org

A range of materials for neurodivergent students and jobseekers, employers and universities. These can be found at www.neurodiversityhub.org/resources

Neurodiversity Showcase Two:
Neurodiversity at UCD College of Health and Agricultural Sciences

Neurodiversity at UCD College of Health and Agricultural Sciences

Beth Kilkenny, College of Health and Agricultural Sciences

Neurodiversity at UCD CHAS : The power of external collaboration for impact and reach.

Monthly Masterclass Series

Since 2020
12,000+ registrations
9,000 recorded watch backs

Conference: Neurodiversity: A Paradigm Shift in Further Education and Beyond

December 2020
400+ registrations
1600 recorded watch backs

Conference: Neurodiversity and the Legal System : Towards Equality for All

May 2022
800+ registrations
1,000 recorded watch backs

Conference: Neurodiversity – Shifting Paradigms in Mental Health

May 2023
2,500+ registrations
2,500 recorded watch backs

UCD CHAS Blanaid Gavin, Mary Doherty, Timmy Frawley, Beth Kilkenny (Previous Members Tom Flanagan, Fiona McNicholas)

Neurodiversity at UCD CHAS : The power of external collaboration for impact and reach.

How it started..

In 2019 colleagues across CHAS met with the goal of increasing awareness and understanding of Neurodiversity in UCD and beyond.

Who are we ?

In 2020 we joined with colleagues across Ireland and globally to create a partnership of neurodivergent individuals and neuro-allies working and conducting research in the field of Neurodiversity.

What do we do?

Monthly online Masterclass Series : Annual Online Conferences :

Fora where neurodivergent individuals and advocates, researchers, academics, employers, artists, and healthcare professionals share their expertise and experience; and everyone is welcome.

Neurodiversity Showcase Three: Inclusive Assessment

Inclusive Assessment: Fair and effective assessment for all UCD students

Geraldine O'Neill: UCD Teaching & Learning (2023)

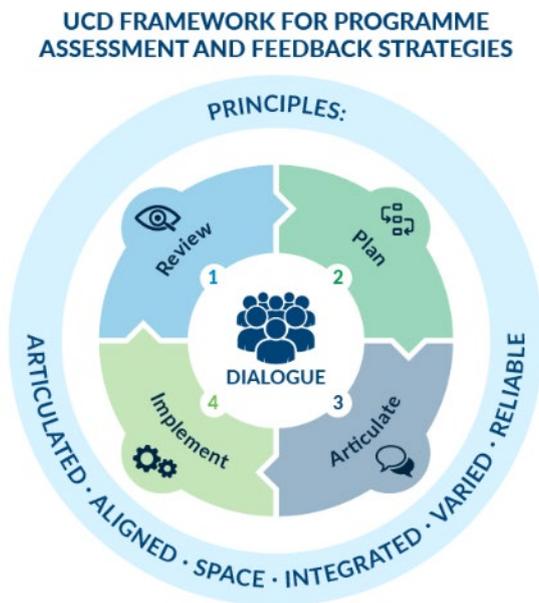**UCD FRAMEWORK FOR PROGRAMME ASSESSMENT AND FEEDBACK STRATEGIES**

Figure 1: UCD Framework for Programme Assessment and Feedback Strategies

Assessment can be challenging for many students, however neurodivergent students can be challenged and unintentionally excluded by many of the assessment methods and approaches that are used in higher education. For example, despite a wide range of programme outcomes to be assessed, 41% of modules in UCD are still using traditional exams (2021/22)[1]. One approach to supporting these students is the provision of *assessment accommodations* (additional time, space, technology assistance, etc), however this requires students to identify themselves and some may be reluctant to do this. In addition, there can be significant cost for some students in the diagnostic and/or medical reports required for these accommodation. The other approach is to develop more *inclusive assessments* for <u>all</u> students (UCD T&L, 2023a) that support a wider range of students and consequently many neurodivergent students.

Inclusive assessment has been described as

> " *design and use of fair and effective assessment methods and practices that enable all students to demonstrate to their full potential what they know, understand and can do'.*

(Hockings 2010, p. 34)

Over the last few years, UCD Teaching and Learning (UCD T&L), in association with colleagues and other UCD units, has led a series of institutional projects and research to support this approach at both programme and module level. Three key activities over the last five years have been:

1. The development of the *UCD Framework for Programme Assessment and Feedback,*

2. Institutional agreement on '*Key Assessment Types*', and

3. UCD T&L project and research on *Inclusive assessment.*

1 **Development of the *UCD Framework for Programme Assessment and Feedback Strategies* (2018-2020)**

Over-assessment, lack of integrative and diversifying assessment were three drivers that underpinned the need for an institutional assessment project in 2018-2020. These key areas are particularly challenging for neurodivergent students and came to the fore in the institutional curriculum review and enhancement project (2015-17).

This 2018-2020 project was led by UCD T&L working closely with the Vice Principals for Teaching and Learning (VPTLs) in each College. Its emphasis was on the development of a UCD programmatic approach to assessment and feedback. 65 Programme Directors and six College VPTLs were initially surveyed to establish their assessment challenges. Based on the results, six 'UCD Principles for Programme Assessment and Feedback' were developed. Over a two-year period, UCD T&L facilitated 18 College-specific, Programme Directors, or UCD wide workshops/sessions, with approx. 549 participants in total. As part of the project, collaborating with UCD Registry, recommendations for the curriculum management system for assessment and feedback were made.

A key emphasis this project was to support faculty/staff in the dialogue and development of a programme approach to:

- ensure that module assessment and feedback approaches build coherently from previous (vertical integration) and, where possible, parallel modules (horizontal integration) and/or

- develop integrative assessment where one or more assessments are designed to draw on the work of multiple modules, i.e. a capstone assessment, themed assessments, portfolio assessment (UCD Regs 4.4)

The key outcome of this project was an institutionally approved *UCD Framework for Assessment and Feedback Strategies,* (UCD T&L, 2023d) (See Figure 1). The framework offers a recommended process (review, plan, articulate, implement) and underlying principles. The principles relate to *assessment load (space), integration* and *varied assessment* and are key to supporting success for all students including neurodivergent students.

The Framework has also now been embedded into the *UCD Handbook for Internal Periodic Quality Review (Academic School)* (Quality Office, 2023, p23).

2 Institutional Agreement on '*Key Assessment Types'* (2019-2024)

Since 2018/19, also linked with the idea of *varied* assessment, there has been a strong driver to revise the limited list of 'assessment types' available in the module descriptor. The current list of assessment methods, for example, gives prominence to the *exam* and precise details on the timing of assessment are often 'under-described' through the selection of options such 'unspecified' or 'throughout the trimester'. These may present barriers to success for neurodivergent students who need clarity and transparency and may find some exam types challenging.

The initial step was to develop a broad set of assessment methods (or types), with clear descriptions that could be used across UCD. This was led by UCD T&L in consultation with VPTLs, School Heads of T&L, the wider faculty community and UCD Registry. Post-pandemic, drawing on online assessment experiences, the initial list was enhanced to include more online and take-home types of assessment, resulting in a final list of *16 key assessment types*.

A practical web-based resource provides an overview of:

- the key assessment types used in UCD, outlining what each can assess,

- their advantages and disadvantages,

- considerations for design and

- how faculty and staff can prepare and support students to complete them.

Following some research carried out in UCD (O'Neill, 2011; 2023; O'Neill & Padden, 2021), one of the options in this list, which will be of particular value for neurodivergent students, is the use of *'student negotiated/choice of assessment' (UCD T&L (2023c)*. This allows <u>all</u> students in a module to choose from a choice of two or more assessment methods, allowing them to play to their strengths.

These assessment types, and more details on the timing of assessments, have been approved by the University Programme Board (UPB) and will be available to module coordinators in the Curriculum Management System from September 2024. This represents a significant step-forward for UCD in how it understands, describes, communicates and records assessment information.

3 UCD T&L Inclusive Assessment Project and Research (2022-2024)

Building on the earlier work in this area, and the recent institutional strategic emphasis on equality, diversity and inclusion (EDI), in 2022 UCD T&L embarked on a two year-project on *Inclusive Assessment*. The initial step in this project was to develop a working understanding of the term and what it encompasses.

Based on a literature review, UCD T&L develop a webpage (*UCD T&L, 2023a)* that aims to assist staff and students in their initial understanding of the concept and its value for student learning. Some key aspects of inclusive learning included the use of assessments that are diverse, empowering, manageable, authentic, scaffolded, transparent, allows choice. These can still be achieved while maintaining academic standards (See Figure 2).

Inclusive Assessment: Project Webpage

Figure 2: Inclusive Assessment : Key Concepts

In 2023, a series of four webinars, one programme-focused assessment workshop, and the UCD T&L Symposium (Sept 2023) focused on topics relating to these key concepts.

In 2023/2024 the project aims to run School and Programme based workshops to support local discussions and develop some solutions to identified challenges in inclusive assessment. The project team are also carrying out research on this topic through, a) interviews with UCD faculty, UCD students and international experts and b) data gathering and analysis of the workshops. This project therefore, supports an evidenced-based approach to the enhancement of assessments that are more inclusive for all students in UCD.

In summary, UCD T&L has over the last five years been embedding an institutional approach to inclusive assessment at both programme and module level. We have focused on removing some of the potential barriers faced by neurodivergent students by advocating assessment approaches that support all students.

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UCD T&L (2023b) Assessment & Feedback Webpage: UCD Dublin

UCD T&L (2023c) Guidance On Online And In-Person Assessment Types, Webpage: UCD Dublin

UCD T&L (2023a) Inclusive Assessment webpage: UCD Dublin,

UCD T&L (2023d) UCD Framework for Assessment and Feedback Strategies, webpage: UCD Dublin,

[1] Data courtesy of UCD Registry

Neurodiversity Showcase Four: School of Agriculture & Food Science: Annual Seminar 2022

Annual Seminar 2022: Focus on Neurodiversity

Deirdre O'Connor, School of Health and Agricultural Sciences

The School of Agriculture and Food Science organises an annual seminar hosted jointly by its Teaching and Learning (T&L) and Equality, Diversity, and Inclusion (EDI) Committees. Attendance by the whole school community, across all staff categories, is encouraged. In May 2021, the focus of the seminar was on EDI Issues in Teaching and Learning, and it took the form of "taster" sessions on a variety of EDI-related topics, comprising presentations by staff and invited guests who had expertise in specific areas. The issues addressed, with specific reference to their implications for teaching and learning, included disability, gender, teaching across cultures, unconscious bias, neurodiversity, and Universal Design for Learning (UDL) As part of the feedback process, and in recognition that the presentations were intended to serve as "tasters", seminar participants were invited to identify topics that they would like to see addressed in more detail in a subsequent seminar. The topic of neurodiversity was by far the most popular choice, so in May 2022, the joint T&L/EDI School seminar focused on the theme of neurodiversity and issues in teaching and learning, and was addressed by Dr. Blanaid Gavin, Consultant Child and Adolescent Psychiatrist and Associate Professor at the School of Medicine, UCD. The seminar also included a moderated panel discussion, comprising contributions from neurodivergent students from the school community, outlining their experiences of student life within the school and the University. While the majority of these student contributions took place in a Q&A/interview-style format, one of the most impactful contributions came in the format of a written reflection submitted to the panel by one of our recent graduates and read to the seminar participants by a committee member.

Evaluation and feedback on the content and format of the seminar was extremely positive overall, but it also clearly identified the student input, and the written contribution in particular, as the highlight of the event. Many teaching staff reported that it was their first opportunity to reflect on how their practice might impact on neurodivergent students. Others commented that while the hosting of the event was a welcome development, it underscored the profound challenges faced by these students, notwithstanding the many positive experiences that they had described in the course of the seminar. As one seminar participant stated, it highlighted that the school still had "…quite a way to go" before fully meeting its own stated objective of being an environment which is completely inclusive of all students.

Neurodiversity Showcase Five: UCD Festival 2023

UCD Festival 2023: Neurodiversity within the Festival: Report on Neuroinclusive Programme at UCD Festival 2023

Jennie Blake, UCD Alumni & Simon Gray, UCD Arts and Humanities

Neurodiversity Initiatives at UCD Festival 2023

UCD Festival 2023 was proud to create a welcoming and inclusive experience for all. In collaboration with the UCD Neurodiversity Committee. A programme of sensory-friendly activities was offered for the enjoyment of neurodivergent attendees, who also had priority access to the full Festival programme, with the support of Neurodiversity Ireland. Special events included a silent disco, a sensory bus, a sensory-friendly movie screening and fun sessions with an occupational therapist. In addition, there were six designated chillout zones across campus, providing relief from overwhelming environments. Festival content providers and volunteers were briefed on neuroinclusivity and recognising special-needs lanyards, and volunteers were assigned specifically to the sensory programme. UCD's commitment to creating a neurodiversity-friendly campus was highlighted by a lively panel discussion as well as prominent signage.

The sensory programme was welcomed by Festival participants, volunteers and visitors, and feedback was overwhelmingly positive. One parent of an autistic child told us, 'You couldn't have done any more to be inclusive at UCD Festival', while another parent said, 'It shows you care and you're making an effort to include us all'.

Informed by the success of the sensory-friendly programme and the lessons learned, we plan to expand the programme at UCD Festival 2024. This will involve increased engagement and collaboration with both internal stakeholders and the wider neurodiverse community.

> *This allows us to plan this journey without any unpredictable events for xxxx, the social story the festival have provided also has been fantastic. Well done to you all a truly inclusive campus and festival for all. We are looking forward to enjoying the day and it's not often we can say that!"*

Parent of autistic child

> *You couldn't have done any more to be inclusive at the UCD Festival"*

Parent of autistic child

> *Fair play putting a splash of "autism-friendly" all over the event. Even the map itself gives you confidence as a family to go to an event like that. It shows you care and you're making an effort to include us all"*

Parent of neurodivergent child

> *The messaging and clarity about priority queuing for neurodivergent attendees was especially appreciated".*

Lisa Redmond, Active Kids Academy, Advocate for neurodiversity

> *The sensory spaces dotted around the event meant families could reduce overwhelm and actually enjoy the day for longer than they usually would at this kind of event"*

Neurodiversity Ireland

Neurodiversity Showcase Six: Neurodiversity Celebration Week

## Neurodiversity Celebration Week at UCD

UCD Neurodiversity Group

Neurodiversity Celebration Week 2022-2023

UCD hosted its first Neurodiversity Celebration Week in March 2022. A series of events coordinated by UCD EDI took place across the week with the aim of increasing awareness of Neurodiversity across the University. Events included an online launch event hosted by Dr Blanaid Gavin, and an event hosted by the Students' Union encouraging a welcoming space for neurodivergent members of the student community. Later in the week, Siena Castellon, founder of Neurodiversity Celebration Week, spoke with Associate Professor Timmy Frawley UCD SNMHS, at a webinar titled 'University and Beyond' which also included speakers from Google, Goldman Sachs and Amazon. Other events included a screening of 'The Reason I Jump', a workshop hosted by the College of Science and ALL, and a webinar on Neurodiversity and the Built Environment.

For Neurodiversity Celebration Week 2023 the organising committee focused its efforts on one keynote event hosted in UCD Global Lounge. A panel discussion chaired by Dr Cliona Kelly, UCD School of Law, explored creativity and neurodiversity. Anna Czarska (Film Director Producer and Writer), Dearbhla Kelly (Graphic Designer, Illustrator and Colourist) and Louisa Ní Éideáin (Comedian and Writer) spoke about their experiences as artists, and the advantages of being neurodivergent in a creative environment.
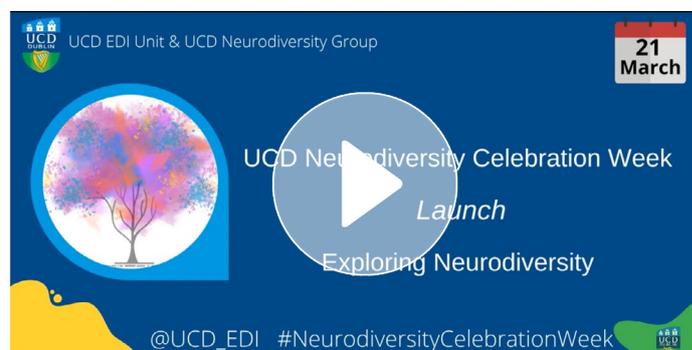
Dr Blanaid Gavin, UCD School of Medicine and Chair of UCD Neurodiversity Working Group, updated on the findings of the 'Making UCD a Neurodiversity Friendly Campus' research project. Finally, Nicole Beagen of Dyslexia Ireland delivered a workshop with a strengths-based focus, shining a light on dyslexia and inclusion in the workplace for employees and students. We hope these events create awareness of Neurodiversity across the University and demonstrate to neurodivergent students and staff that UCD is a place that seeks to welcome and support all members of its community equally.

A four-part mini-series for The BlindSpot podcast exploring neurodiversity, arts and culture and the lived experience of neurodivergent people was created by Tina Lowe, Campus Accessibility Officer, UCD in collaboration with Allen Higgins, UCD Quinn School of Business.

Neurodiversity Showcase Seven: UCD Estate Services: Residential Assistants Training

Residential Assistants Training: Universal Design for Inclusion

Aishling Kennedy-Dalton, UCD Estates Services

As community-based peers, Residential Assistants (RAs) provide vital operational and community support in the Residences (more than 4,000 beds). Each August this team of 82 undergo extensive training over 6 days and this year in addition to their usual introduction to supporting those with disabilities, they received a separate presentation (delivered by ALL) entitled "Universal Design for Inclusion" on August 29th.

This was an opportunity for them to discover how Universal Design could be incorporated naturally into their role and activities. They were encouraged to be mindful when they organised events of the needs/preference of a more divergent population. On a practical note, for example, they explored how to make written communications more inclusive and how that might be incorporated into event organisation. They were also

Neurodiversity Showcase Eight: UCD Library

Contributing to making UCD a neurodiversity friendly University

UCD Library

introduced to the Universal Design Event Checklist.

UCD Library is actively engaged in helping to create a 'University for All', offering inclusive spaces for everyone in UCD. The redevelopment of the James Joyce Library is central to delivering that vision. Level 3 of the library has been refurbished and reopened for the academic year 2023/2024. It offers 535 transformed spaces for students in a variety of different modes. These include sensory spaces to support students with specific sensory sensitivity and built environment needs. These spaces facilitate anyone who has challenges in self-regulation and focus, so that they can engage in study with equal opportunity and support.

These spaces were designed for the Library by Reddy Architecture and Urbanism, drawing on student feedback, and incorporating input from occupational therapists, UCD Access and Lifelong Learning, and ASIAM.

The first of these spaces is the Sensory Transition Room, which allows students who are overwhelmed to disengage for short periods, self-regulate, and re-engage. It includes walls with a soft Baux-work pebble colourwash mineral paint, dimmable warm LED lighting, a tactile wall mural, and a walkway area. This space will have furniture options

for movement, as well as grounded seating as a way of using weight and gravity to self-regulate.

The Sensory Study Room is a bookable space that supports study in an environment students can adjust to their own specific needs, helping them to maximise their engagement. It features a similar muted colour scheme to the transition space and includes sectioned desks with high dividers made from solid acoustic panels that do not allow any rattling or movement. This room has dimmed waffle lighting as well as individually controlled colour-wheel lighting system at each desk, and acoustic sunshade blinds.

Any student is welcome to register to use these spaces. It is intended to feature further spaces of this kind throughout the rest of the redevelopment of the James Joyce Library, and to include other supports such as the noise-cancelling headphones currently available, and which are offered in the James Joyce Library in partnership with UCD ALL.

Neurodiversity Showcase Nine: UCD ALL: Student Supports

Tailored Student Supports

UCD ALL

There has been an increase in queries from students seeking a diagnosis of ADD/ADHD in particular. ALL has been working closely with ADHD Ireland and Professor Jessica Bramham in the School of Psychology who has been involved in the development of the National Clinical Programme to support adults with ADHD. As a result of this, ALL has developed Brightspace resources hosted in the ALL Student Supports module.

How to…Manage Your Time (and miss nothing)

twitter@UCDforALL
instagram@ucdforall

University College Dublin
University for All

Tips for UCD Students- ADD/ADHD

Managing third level effectively with any disability involves the use of a number of available services and tools. It is also very important that each individual student **takes responsibility for their own academic career at UCD**.

The aim of the UCD Access & Lifelong Learning (ALL) is to allow all students receiving Disability Support to **become independent learners** so they can develop the skills expected of successful graduates to bring into the workplace. The following guidelines are designed to help you to reach that goal.

Communication

- UCD encourages any student with ADD/ADHD to **communicate with UCD ALL** in order to receive the necessary supports to manage your student role.
- You will be required to provide appropriate Evidence of Disability and **attend a Needs Assessment**, where the appropriate classroom and exam accommodations will be discussed.
- After completing the Needs Assessment, you will be provided with a **Certificate of Disability Support** which outlines the supports you are availing of in UCD. You are encouraged to **send this Certificate to your Module Coordinators/lecturers/tutors** to inform them about necessary classroom supports and to request exam accommodation for in-trimester exams, in-class tests or locally arranged exams.
- You have the option to put **'ADD/ADHD Awareness'** on your certificate as a way of disclosing to the module coordinators/lecturers if you would find this helpful.

Exam Accommodations

- The **exam supports available for end-of-trimester exams** will be discussed within the Needs Assessment (you may still use exam supports for **in-trimester exams but must request them from Module Coordinators directly**).
- These supports are based on **national guidelines**. Hence, certain supports may not be appropriate for everyone with ADD/ADHD. Examples of exam supports include:

| 10 minutes extra time per hour | Alternative exam venue | Low distraction booth |

Access and Lifelong Learning (2021)

Neurodiversity Showcase Ten: UCD Alumni

UCD Alumni

Sinead Dolan: UCD Alumni

UCD Alumni are proud to be involved in promoting and celebrating neurodiversity across campus and involving alumni around the world. UCD Alumni featured Dr Blánaid Gavin, Consultant Child and Adolescent Psychiatrist; Associate Professor, UCD School of Medicine; and Chair UCD Neurodiversity Working Group in an interview in our alumni magazine, UCD Connections, in 2022 which continues to be promoted widely.

UCD Alumni worked with the UCD Festival team in 2022 and 2023 to promote sensory-friendly spaces and a programme of sensory-friendly activities that took place on campus. We continue to work with UCD EDI to promote awareness about neurodiversity through promotion in the 2023 alumni magazine in a campus news round up. Neurodiversity Masterclass Series and Neurodiversity Celebration Week activities are promoted in Alumni eNewsletters, monthly events emails and social media campaigns throughout the year. "Wonderful to see this!!! We need more discussion and education. We learn through communication and active listening."

> "Neurodiverse people are a huge source of invisible innovation in society and if this is recognised, the world will be a better and more diverse place for it."

Neurodiversity Showcase Eleven: UCD Research and Partnerships

National Clinical Programme for Adult ADHD (HSE)

UCD Research and Partnerships

There is a new national clinical programme for the diagnosis and support for adults with ADHD. You can read about this on the HSE website. Centres are in the process of being set up across the country but not all areas have coverage. To access this programme your GP would need to refer you to Adult Mental Health Services who would then refer you to the National Clinical Programme if deemed appropriate. There is no fee to access the national clinical programme.

The Adult ADHD App:

As part of the National Clinical Programme an app has been developed for adults with ADHD. It is available to download from Apple and Google App stores. Further information is available via the link to the HSE webpage:

Please scan here:

GET IT ON
Google Play

Available on the
App Store

Or alternatively type the address below into your browser
https://adult.adhdirl.ie/download

HSE NATIONAL CLINICAL PROGRAMME

The Adult ADHD App

Developed by the National Clinical Programme for ADHD in Adults, in partnership with ADHD Ireland and the UCD School of Psychology

Self Care App
This app is for:
- **Adults** diagnosed with ADHD
- **Adults** who may have ADHD
- **Partners, family and friends** of adults with ADHD

Please scan here:

GET IT ON
Google Play

Available on the
App Store

Or alternatively type the address below into your browser
https://adult.adhdirl.ie/download

Interventions
How does diagnosis work? What medications are available? Psychosocial Interventions in ADHD What is ADHD Coaching?

Self Help Techniques
Mindful breaks, nutritional information, exercise tips, self-care and recommended reading.

Living with ADHD
Tips for adults with ADHD on mental health, relationships, work & education, managing finances and more....

Developed in partnership with...

ADHD IN ADULTS
HSE NATIONAL CLINICAL PROGRAMME

UCD DUBLIN
University College Dublin
Ireland's Global University

ADHD IRELAND
SUPPORT • EDUCATION • ACCEPTANCE

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

RCT

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Anastopoulos et al, 2021	USA	Examine the efficacy of ACCESS (Accessing Campus Connections and Empowering Student Success) for college students with ADHD	Primary Outcome: Conners Adult ADHD Rating Scale. Behaviour Rating Inventory of Executive Function. Beck Depression Inventory. Beck Anxiety Inventory. 2ndary Outcome: Test of ADHD Knowledge. Strategies for Success. ADHD Cognitions Scale. Services for College Students Questionnaire	RCT	ADHD	Student	250	ACCESS is a CBT program that incorporates elements of empirically supported adult CBT programs adapted to developmental needs of emerging adults with ADHD in College. Delivered across 2 consecutive semesters, the first is an intensive 8-week active phase including 8 weekly group sessions approx.90 mins along with individual mentoring sessions, approx. 30 mins. Followed by a less intensive semester-long maintenance phase with treatment gradually faded. One booster group session is offered at the start of the semester, along with up to six 30 min individual mentoring sessions. Participants assigned to treatment arm received ACCESS immediately. Participants assigned to control arm had a 1-year delay to receive treatment.
Fleming et al 2015	USA	To provide an initial evaluation of the efficacy, acceptability, and feasibility of DBT group skills training targeted to reduce symptoms and impairment associated with ADHD among college students.	Primary Outcome Measures: Barkley Adult ADHD Rating Scale-IV, Brown ADD Rating Scale, ADHD Quality of Life Questionnaire, Beck Anxiety Inventory and Beck Depression Inventory 2nd Edition, GPA academic quarter prior to each assessment point 2ndary Outcome measures: 5 Facet Mindfulness Questionnaire, Conner's Continuous Performance Test 2nd Edition.	RCT	ADHD	Students	33	DBT skills taught in the intervention were adjusted from standard DBT to include: 15-minute individual pre group meeting focused on motivation enhancement, 8 weekly 90-minute group sessions focussed on skills acquisition and strengthening, 7 weekly 10-to-15-minute individual coaching phone calls focused on skills generalization. 90-minute booster group session to promote maintenance of skills use. This was held in the first week of the follow up quarter. Participants in the skills handouts (SH) comparison treatment condition received 34 pages of SH, drawn from a manual for treatment of adults with ADHD (Tuckman, 2007) and designed to reflect publicly available self-help materials for ADHD.

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

RCT

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Gu, Xu & Xhu, 2018	China	To examine efficacy of a 6 week 'MBCT relative to wait list' control group for college students with ADHD	Conners Adult ADHD Self-Rating Scale, Attentional Network Test, Beck Anxiety Inventory, Mindfulness Attention and Awareness Scale, GPA.	RCT	ADHD	students	54	Participants randomised to receive either MBCT or control group wait-list (WL) over 6-week period. Control group offered MBCT at end of study. MBCT included six weekly individualised sessions for 1 hr individual in place of traditional group format. Included self-practice and workbooks.

Non-Randomised Experimental Study

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Jackson et al, 2018	USA	To examine the effects of a writing learning strategy (DATE) on the writing performance of 3 college students with Asperger's Syndrome.	Writing Across the Curriculum (WAC) rubric Total no. of correct words written, and duration of time spent writing. Pre and Post intervention survey	Non-randomised experimental study	Asperger's syndrome	Students	3	Following establishment of a baseline, 10 intervention sessions and 4 follow up sessions are delivered. The strategy instruction was modelled on the Self-Regulated Strategy Development model (SRSD) model. Students are taught strategies for planning, writing, editing, and revising their written products. Students are also taught to monitor their own writing, using self-talk to guide themselves through strategy use. The mnemonic DATE is utilised.
LaCount et al, 2018	USA	To evaluate the effect of a skills training intervention for students with elevated ADHD symptomatology & academic impairment.	Barkley Adult ADHD Rating Scale–4. Weiss Functional Impairment Rating Scale. OTMP Skills Utilization Scale. Treatment Acceptability Questionnaire. Course Grades.	Non-randomised experimental study	ADHD	students	41	The organization, time management, and planning (OTMP) skills training intervention was a condensed adaptation of the treatment protocol developed by Solanto, Marks, Mitchell, and Wasser-stein (2011) to help adults cope with ADHD. The intervention for this study was delivered in 3 weekly, 1 hour group sessions, each session targeted specific OTMP skills.

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

Non-Randomised Experimental Study

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Prevatt et al, 2017	USA	To evaluate the processes involved in ADHD coaching for students attending 8 weeks of 1:1 ADHD Coaching Sessions.	Client Goals and Objectives Form. Therapist-coach weekly questionnaire.	Non-randomised experimental study	ADHD	Students	34	Coaching sessions for 8 weeks at a university-based training clinic. Individualised coaching for 50 minutes weekly. Participants select goals and objectives.

Quasi Experimental Design

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Waisman et al 2022	Multinational (5 Countries)	To implement and evaluate online Autism and Universal Design (UD) training for higher education teaching staff to better support autistic and otherwise diverse students. Tested 3 hypotheses.	Social Dominance Orientation: Two items Pre-test, post-test, and maintenance measures: Autism Acceptance Scale, Participatory Autism Knowledge Measure, Inclusive Teaching Strategies Inventory	quasi experimental	Autism	Teaching staff	Pre: 98 Post: 89 Maintenance 1 month later: 82	5 stages: Each stage to be completed within 1 week of starting stage. Pre-test, autism module, UD model, post-test, maintenance 1 month after post test Online Autism and UD training programme. Two online asynchronous modules: Autism module: Provide key facts about autism, critique common misconceptions about autism and neurodiversity, provide specific teaching strategies that autistic scholars considered effective based on prior research and their lived experiences UD module: Define UD, discuss associated principles and strategies, how online teaching can be powerful UD tool

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

Pre/Post Design

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Hillier et al, 2018	USA	To evaluate the effectiveness of a support group model for university students with autism spectrum disorder in improving psychological and functional outcomes.	Pre and post Rosenberg Self-Esteem Scale. UCLA Loneliness Scale Counselling Centre Assessment of Psychological Symptoms Post Questionnaire re: social validity Focus Groups	Pre-Post Test	Autism	Students	52 total	Program model to work with students with ASD. Included group meeting for 1 hour a week over 7 weeks. Topics included social life on campus, academic skills, managing group work, and time and stress management.
Siew et al, 2017	Australia	To evaluate the pilot year of the Curtin Specialist Mentoring Program (CSMP), a specialised peer mentoring program for university students with ASD aimed at improving self-reported well-being, academic success and retention.	Pre and Post: Adult Manifest Anxiety Scale–College Version, Social Provision Scale, Situational Communication Apprehension Measure, Self-Perceived Communication Competence Scale, Personal Report of Communication Apprehension Post: Student Satisfaction Survey, Info re: grades and student load collated. Semi Structured Interviews	Pre-post-test evaluation	Autism	Students	10	Curtin Specialist Mentoring Programme (CSMP) Mentees: paired with 1 specialist mentor who provides individualised support based on mentee needs through 1-hour weekly meetings. Mentors: Receive specialist training. Weekly group supervision with the program coordinators. Curtin Social Group: Weekly group that mentors and mentees are encouraged to attend, that provides a safe environment to improve social communication and interaction outcomes.

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

Pre/Post Design

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Trevisan et al 2021	Canada	Evaluate an Autism Mentorship Initiative (AMI) for autistic undergraduates who received 1:1 support from mentors.	College Adjustment: Student Adaptation to College Questionnaire Program evaluation survey: (mentors and mentees) Grade Point Average	Pre post evaluation	Autism	Students	Mentees (n=19) Mentors (n=21)	AMI is a mentorship program matching incoming autistic students with mentors. Both mentees and mentors are interviewed to assist the matching process. New mentors attend a day-long orientation and are provided with a program manual. Mentees are encouraged to formulate personal, social, academic, and/or professional goals. Part of mentor/mentee meetings may be spent discussing strategies and creating action plans for achieving goals. AMI hosts social event for mentees to meet new people and informally practice social skills. AMI also offers seminars from invited expert speakers. Three times per semester, all mentors convene with AMI supervisors. mentors are also invited to schedule private meetings with the AMI program coordinator for additional support.

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Component Analysis								
Fairchild et al, 2020	USA	To evaluate the use of a peer mentor program to foster social engagement of college students with ASD by increasing attendance at weekly supervised socials. To assess the utility of an incentive program combined with the use of peer mentors to increase social attendance.	Evaluation survey Frequency count of weekly attendance at socials.	Component Analysis	Autism	Students	40	Peer Mentor Program: 24 supervised social events of organised in response to student goals over 2 consecutive academic semesters. Activities randomized across trials; each phase included the same categories of activities. Participants received e-mails reminders in advance. All social events lasted approx. 1/2 hours. Baseline (A). First 6 social events of the semester, occur prior to peer mentor or reinforcement systems being implemented. Attendance counted at each social. Peer mentor (B). 9 social events. Participants contacted for an opportunity to be matched with a peer mentor. Peer mentors required to meet with mentee at least once per week outside of weekly social events. Peer mentors were also encouraged to attend weekly social event, and to reach out to their students prior to each social event. Participants were again contacted via e-mail and encouraged to attend. Peer mentor þ incentive program (B & C). Next six social events. The same peer mentor system was continued along with an incentive to attend program. Participants were notified of the incentive program procedures several times prior to implementation. For each social event they attended, participants enter a raffle for a prize. Return to peer mentor w/o incentive program (B) Last three social events. The same peer mentor system continued. Participants were notified that the incentive program would no longer be implemented but were still encouraged to attend via e-mail and their peer mentor.

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

Survey Design

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Ames et al 2016	Canada	To evaluate the ASD Mentorship Programme (AMP) logic model, particularly objectives C & D by providing a description of the population served over 4 years, highlighting how students use the program and evaluating and evaluating satisfaction with the program.	End of year evaluation of the AMP programme.	Survey	Autism	Students	23	This article is an evaluation of the programme over a 4-year period. The AMP has 2 main components: individual mentor meetings and group events focused on either targeted workshops or social activities. Mentor and mentee meet weekly/ biweekly to provide support based on the students' needs. The meetings are a place to formulate personal goals, work on strategies to solve problems, and/or develop skills in particular areas. The group events were social or educational and designed to provide students with a safe environment where they can practice skills and develop social relationships with others in the program.
Anderson, Carter, and Stephenson, 2018	Australia	Explore experiences of students with ASD in New South Wales & the Australian Capital Territory	Online questionnaire	Survey	ASD	Students	48	None
Chiba and Lowe, 2007	USA	To evaluate student perceptions of the impact of a course developed to assist students with learning disorders, both learning disabilities and AD/HD transition and adjust to a university environment.	Follow up questionnaire for participants between Fall 1992-Spring 2002 Pre and Post questionnaire for participants from Fall 2002-Fall 2004	Survey	Learning Disability and ADHD	Students	Past student - 73 Current student68 for pre-test, - 50 for post test	Course Based Model for Transition to College: Course was developed as part of an existing series of study strategy courses offered through the campus student learning centre. Delivered by specialists from the campus counselling centre disabled students programme and student learning centre. 2 pass/not pass courses using interactive discussions, sharing own experiences, role play, small group, and individual presentations.

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

Survey Design

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Mejia et al, 2017	Spain	To investigate whether students found a web-based tool (called PADA) useful to detect their reading difficulties and implications for learning and cognition.	Online questionnaire	Survey	Dyslexia	Students	26	A web-based tool designed to facilitate the creation of descriptive visualizations for better understanding by students about their learner model. The information visualization techniques seek to create awareness for the student about their reading difficulties, learning style and cognitive deficits, to support reflection. Additionally, the tool provides different learning analytics on reading performance of students, so that they can self-identify their strengths and weaknesses and self-regulate their learning. Delivered in a 60 minute approx. individual session.
Rowe 2022	USA	To describe how 1 programme used peer mentoring as an intervention to increase success for first time in college (FTIC) students with ASD who were new to the programme.	Survey GPA collected at end of the first semester and end of 1st year.	Survey	Autism	Students	18	Transition to Healthiness, Resourcefulness, Independence, Vocation, and Education (THRIVE) -- The THRIVE program emerged to provide supplemental supports for students with ASD, specifically in the areas of independent living, social skills, career development and executive functioning skills (added in 2014). Mentors attend 2 days of training. Students meet with mentors to identify their goals, using these as an ongoing checkpoint while attending college.

Cross Sectional Design

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Cage, De Andres & Mahoney, 2020	UK	To enhance understanding of factors contributing to university completion for people with autism.	Online survey, UCLA Loneliness Scale. Warwick-Edinburgh Mental Wellbeing Scale. Ritvo Autism and Aspergers Diagnostic Scale.	Cross sectional study	Autism	Students	230	None

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

Cross Sectional Design

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
DeGroot and Smeets, 2017	The Netherlands	To examine if higher ASD symptomatology is predictive of performance, and experienced problems and benefits in PBL curricula	ASD-PBL Fit Questionnaire Autism-Spectrum Quotient self-report measure	Cross sectional study	ASD	Students	107	The study recruited from faculties and programmes where this form of teaching and learning was already in place.
Elgendi, Stewart and Deacon, 2021	Canada	To examine differences between general & academic-specific psychological functioning problems in students with and without a history of reading difficulty.	Adult Reading History Questionnaire Revised. ASE scale. SSE scale. LASSI scale. Kessler psychological distress scale.	Cross sectional study	Reading difficulty	Students	86	None
Ryder and Norwich, 2019	UK	To explore the nature and extent of UK lecturers' awareness of, and attitudes towards, dyslexia and dyslexic students.	Online questionnaire	Cross sectional study	Dyslexia	Lecturers	164	None

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

Cross Sectional Design

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Stampoltzis et al, 2015	Greece	To explore the knowledge, attitudes, and views of academic staff towards students with dyslexia. Examine teaching methods and accommodations used for the benefit of dyslexic students.	Questionnaire	Cross sectional study	Dyslexia	Academic and teaching staff	19	None
Sumner, Crane, and Hill 2021	UK	To explore how confident students with dyslexia and/ or DCD are with their study-related capabilities. To provide data re: usage of offered DSA support and exam adjustments by students with dyslexia and/or DCD.\n\nTo determine practices students perceive as helpful to their studies.	Online survey	Cross sectional study	Dyslexia and/ or DCD	students	367	None

Appendix 1: Scoping Review Articles

Quantitative Studies (n=25)

Longitudinal Design

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Bakker 2022	The Netherlands	To examine patterns in study progression and degree completion of Bachelor students with Autism Spectrum Disorder.	GPA Resits no-shows credit accumulation dropout rates	Longitudinal population study	Autism	Students	27643	
Henning, Summerfeldt and Parker, 2022	Canada	To examine the relationship between ADHD symptomatology and academic success.	Conners Adult ADHD Rating Scale. Academic success-GPAs and degree completion status.	Longitudinal design	ADHD	students	3688	None

Exploratory Assessment Design

Author	Country conducted	Aim of study	Outcome measures	Study design	Neurodiversity	Population	No. of participants	Intervention description
Davidson, DiClemente and Hilvert, 2021	USA	To examine concerns of college students with ASD so supports can be tailored. Compare experiences to neurotypical peers to accurately pinpoint specific challenges encountered	Social Responsive Scale-2nd Edition Adult Self Report (SRS-2) Survey	Exploratory assessment	ASD	students	70	None

Appendix 1: Scoping Review Articles

Qualitative Studies (n=26)

Author	Country	Aim	Methods	Design	Neurodiversity	Population	No. of Participants
Bolourian, Zeedyk and Blacher, 2018	USA	To explore perceptions of university students with ASD in relation to those of students with ADHD, to investigate likely factors impeding meaningful postsecondary experiences.	Semi structured interviews	Qualitative design not otherwise specified	Autism Spectrum Disorder and ADHD	Students	31
Briel and Evans Getzel (2014)	USA	The aim of this study was to elicit the experiences of autistic college students related to career planning and preparation, their use of college services and supports and their satisfaction with those services.	Structured interviews	Qualitative survey design	Autism Spectrum Disorder	Students	18
Cage and Howes 2020	UK	Examining the experiences of autistic people in university and the reasons they had dropped out	Semi structured interviews	A participatory approach by the two researchers one of whom identified as autistic	Autism	Past students	14
Casement, Carpio de los Pinos and Forrester-Jones (2017)	UK and Spain	The aim of this study was to explore how higher education students with AS experienced attending university in two European countries. The objective was to find out if experiences differed between the countries in relation to support arrangements and interventions that may aid students social well-being at university.	Life history interviews	Small-scale qualitative comparative project	Asperger's syndrome	Students	9
Cox et al, 2021	USA	To gain an understanding of the experiences of autistic college students to facilitate educators in addressing issues that negatively affect outcomes for this student cohort.	Semi structured interviews	Critical Realism	Autistic Spectrum Disorder	Students	8
Denhart 2008	USA	To identify commonly held structures of consciousness among a subset of students labelled with LD re: their educational barriers and ways to overcome them.	Interviews	Phenomenological research design	Learning Disability	Students	11

Appendix 1: Scoping Review Articles

Qualitative Studies (n=26)

Author	Country	Aim	Methods	Design	Neurodiversity	Population	No. of Participants
Habib et al 2012	Norway	To gain insights to cater for the needs of dyslexic students in a changing educational setting, where new types of online tools are used, the content of learning material is frequently modified and updated, and the sheer quantity of online resources is constantly increasing.	Semi structured interviews	Qualitative (part of a wider study using questionnaires, experiments and questionnaires-only interviews reported in this paper)	Dyslexia	Students	12
Hoben & Hesson, 2021	Canada	The aim of this self-study was to explore the personal and professional impact of having an adult ADHD diagnosis as an academic.	Semi structured interviews	Autoethnography	ADHD	Academics	2
Kim , Crowley and Bottema-Beute, 2021	USA	To examine students perceptions of the initial transition period and overall adjustment to college life.	Semi structured interviews	Constructive semi-structured qualitative study	Autism Spectrum Disorder	Students	27
Kim and Crowley, 2021	USA	To understand autistic students' perspectives and experiences with Disability Support Offices (DSOs) and the range of support services available from DSOs of higher education institutions in the USA.	Semi structured interviews	Qualitative design not otherwise specified	Autism Spectrum Disorder	Students	27
Knott and Taylor (2014)	UK	To examine what life is like for students with autism at one university in the UK and in particular to identify achievements, challenges, barriers and supports to their successful progress.	Focus groups	Qualitative design not otherwise specified	Asperger Syndrome/ High Functioning Autism	Students and Academics	13
Lefler, Sacchetti, & Del Carlo, (2016)	USA	To describe and interpret the shared experience of having ADHD in higher education from the viewpoint of these individuals.	Focus Groups	Interpretative Phenomenological Analysis	ADHD	Students	36
Lei and Russell, 2021	UK	To explore how both autistic and typically developing students and recent graduates perceive their self-determination during their transition into, through and out of university in the UK.	Interview	Critical realist approach	Autism	Students	36
MacCullagh Bosanquet and Badcock 2017	Australia	To explore perceptions of dyslexic students regarding their study practices, challenges, and helpful strategies.	Semi structured interviews	Qualitative Interview Design	Dyslexia	Students	33
Meaux, Green, and Broussard (2009)	USA	To determine the factors that (1) help and (2) hinder students with ADHD as they learn to cope with the everyday challenges of life and academics once they leave the structure and support of their parents' home.	Semi structured interviews	Qualitative descriptive	ADHD	Students	15

Appendix 1: Scoping Review Articles

Qualitative Studies (n=26)

Author	Country	Aim	Methods	Design	Neurodiversity	Population	No. of Participants
Parker et al, 2013	USA	To develop a deep understanding of how coaching is experienced by students and to identify perceptions of the impact of ADHD coaching on their academic success and broader life functioning.	Interviews	Qualitative Research is reported that forms part of a larger mixed methods	ADHD	Students	19
Perry and Franklin, 2006	USA	To explore how students diagnosed with ADHD who matriculated into university remain in college.	Interviews	Grounded Theory	ADHD	Students	10
Roberts and Birmingham, 2017	Canada	To obtain a greater understanding of the concept of mentoring university students with ASD.	Unstructured and semi structured interviews, Progress notes and goal setting forms, Programme evaluation survey- to supplement/clarify interview responses	Grounded Theory	ASD	Students	18
Rowan, 2014	New Zealand	To understand the issues facing first year students who learn with dyslexia in higher education by exploring in-depth the learning transition experiences of four students who learn with dyslexia at one university.	Interviews	An interpretivist and constructivist grounded theory approach.	Dyslexia	Students	4
Scott and Sedgewick, 2021	UK	To explore the mental health experiences of autistic students, and how the university contributes to or mitigates these experiences.	Semi structured interviews	Qualitative design not otherwise specified	Autism	Students	12
Taneja-Johansson, 2021	Sweden	To investigate what facilitates and limits paths of people with disabilities who are moving to/already in Higher Education. The objective is to untangle the complexity of these routes, particularly in relation to how these intersect with socioeconomic background over time.	Narratives, informal conversations, photographs, certificates, existing documentation	Longitudinal Ethnographic case study design	ADHD	Students-prospective/current	5
Taylor, Duffy and England 2009	UK	To examine and evaluate what is reasonable and appropriate in terms of adjustments to cater for students with dyslexia in a higher education context.	Interviews, observation, discussion, documentation review	Case study over 4 years	Dyslexia	University Staff Students	22

Appendix 1: Scoping Review Articles

Qualitative Studies (n=26)

Author	Country	Aim	Methods	Design	Neurodiversity	Population	No. of Participants
Thompson et al, 2018	Australia	To explore required contexts, mechanisms in and outcomes of peer mentoring for students with ASD and their mentors. To inform development of a programme model to describe relationships between context, mechanism and outcomes, potentially informing future peer mentoring programmes for students with ASD.	Semi structured interviews	Realist Evaluation	ASD	Students	47
Thompson et al 2019	Australia	To explore the viewpoints on successful navigation of university for students with ASD, from the perspectives of the students and those that support them.	Q-sort	Q-methodology	ASD	Students, Disability services staff, Parents of students with ASD	57
Van Hees, Moyson and Roeyers, 2015	Belgium	The aim of this study was to gain a comprehensive understanding of how universities and colleges can best support autistic students, from the perspective of those students.	Semi structured interviews	Qualitative Grounded Theory approach to analysis	ASD	Students-current/ recent	23
Vincent et al, 2017	UK	To explore insider perspectives of the diagnostic label of autism and autistic students experiences of university in order to identify some of the key issues, challenges and implications for HE..	Critical Autobiographies	Participatory action research methodology	ASD	Students-current /recent	7

Appendix 1: Scoping Review Articles

Mixed Method Studies (n=9)

Author	Country	Aim	Outcome Measure/Methods	Design	Neurodiversity	Population	No. of Participants
Allsopp, Minskoff and Bolt, 2005	USA	To analyse a newly developed model and its impact on a small sample of participants in the field test, including what seemed to be effective, for whom, and why.	Learning Needs Questionnaire, strategy instructor & participant evaluation, instructor session logs	Mixed methods-quasi-experimental design.	ADHD and/or learning disabilities	Student	46
Bailey et al, 2020	USA	To understand how the social experience, both negative and positive, is related to autistic students' subjective wellbeing. Specifically examined the relationship between social experience and subjective wellbeing, and similarities and differences in the lived social experience of students with low and high well-being.	Autism-Spectrum Quotient. Satisfaction with Life Scale. School Connectedness Scale from the Revised College Student Subjective Well-Being Questionnaire. The Family Support Scale. Interview guide.	Mixed methods-convergent design	Autism Spectrum Disorder	Students	42-Survey 23-Interviews
Fabri et al, 2020	Multi-national	To gain an understanding of the experiences of students with autism in Higher Education.	Survey	Mixed method: survey and thematic analysis	Autism Spectrum Disorder	Students	16
Lee, Osborne and Simoes, 2008	USA	To analyse two testing conditions (self-paced and computer paced) and interpret their impact on participants academic test performance.	Test scores Interview	Mixed method quasi experimental design.	ADHD	Students	21
Magnin and Moulin, 2021	France	To describe medical teachers' opinions about students with neurodevelopmental disorders and their pedagogic management.	Survey	Descriptive-mixed quantitative and qualitative analysis.	Neurodevelopmental disorders	Academic faculty	67
Maurer-Smolder, Hunt and Parker, 2021	Australia	To identify barriers for students with characteristics of dyslexia- with and without an assessment for dyslexia at a university where over two thirds of students had a distance component to their study	ATLAS survey. Semi-structured interviews.	Mixed methods-exploratory study	Dyslexia	Students	136-Survey.12-Interviews.
Mortimore, 2013	UK	To explore attitudes and practices at each level of the institution to establish the extent to which Fullers Model might enable identification and elimination of disablist institutional practice and the development of the fully inclusive ethos.	Questionnaire. Document Review. Interview. Focus Groups.	Mixed-methodology: Case study design	SpLD/Dyslexia	University staff. Students	3: staff interview, 8 staff focus group, 3 Lecturer interview, 248: student questionnaire, 7:Dyslexic student questionnaire (not incl. in analysis).

Appendix 1: Scoping Review Articles

Mixed Method Studies (n=9)

Author	Country	Aim	Outcome Measure/Methods	Design	Neurodiversity	Population	No. of Participants
Parker et al, 2011	USA	To investigate coaching's impact on the academic experiences of 7 undergraduate students with ADHD.	Semester and cumulative GPA and academic credits. Learning and Study Strategies Inventory (2nd edition). Interview	Mixed methods	ADHD	Students	7
Stack-Cutler et al, 2015	Canada	To examine the goal-related social ties and resources that support students with reading difficulties in achieving school and work goals.	Adult Reading History Questionnaire Revised. Goal-Network Inventory. GPA.	Mixed methods: exploratory study	Reading Difficulties	Students	107

Appendix 2: Gap Analysis: Focus Group Outputs

Focus Group Outputs: Neurodiversity Inclusive UCD Services: Mapping the journey of neurodivergent staff and students

Thirty employees from the following student and staff roles attended the focus group from the following areas: IT Services; UCD Estates; UCD Schools from across the five colleges; Student Advisers; UCD Registry; Quality Assurance; Resourcing, HR Partners, Access and Lifelong Learning; UCD Global

The purpose of the focus group is to seek input into development of recommendations for the report. Gain a more in depth understanding of the existing supports, services and processes with which neurodivergent employees and students interact with across the following key areas:

1. Employee Life Cycle and Supports
2. Culture and Awareness
3. Programme & Curriculum Design, Teaching & Learning
4. Student Supports and Services
5. Physical Campus and the Built Environment
6. Information Technology Systems and Infrastructure

What existing supports/services are available in your unit or your role to support those who are neurodivergent?

- Hybrid working beneficial.
- Small units feel they would try and accommodate as best they could if the need arises - unsure about where neurodiversity fits with Reasonable Accommodations and whether those who disclose neurodiverse conditions should be referred to this process.
- the overall impression is that there is a much greater focus on supporting neurodiverse students than staff
- ALL provides a suite of pre- and post-entry students who disclose neurodiverse conditions.
- Campus Accessibility Officer has worked with Estates to develop sensory spaces/gardens on campus.

Can you identify areas for development and recommendations to create a neurodiversity inclusive campus related to your area?

Recruitment and Onboarding

Suggestions:

- The recruitment process should be reviewed and consideration should be given to neurodiverse people in this process (regardless of whether or not they disclose) e.g. knowing who will be on the interview panel, pictorial and written directions and explanations as to how the interview will be conducted provided in advance etc.)
- Review communications with applicants: interviews, orientation and events on campus e.g. using a social story, clear information.
- 'Awareness, Awareness Awareness' – develop university wide campaigns to ensure that those disclosing are not met with disbelief or challenged as to their needs.
- Highlight rights re disclosure at interview and work directly to counter assumption disclosure will cause bias in the interview process.
- Induction for staff, consider a more intimate and supportive approach.

Disclosure and Reasonable Accommodation

Having to 'prove' you have a condition is a major problem. What's the problem in self-identification for staff (on the basis that it is different to the case of students where funding follows the student). Balance to be struck and understanding of the challenges but not 'box off' everything into conditions. There is a need to tackle challenges of disclosure/stigma.. Fear of disclosure and lack of clarity/visibility of the benefits of disclosure.

Culture and attitude change required. Neurodiverent employees and students may have had bad experiences elsewhere.

Appendix 2: Gap Analysis: Focus Group Outputs

Suggestions

- Pilot a neurodiversity friendly approach with staff and promoting UCD as a neurodiversity friendly employer. Perhaps piloting the idea of disclosure without the need for formal documentation. Awareness raising among the staff population would trickle down.

- Tiered system with different routes dependent on support needs with some measures implemented to enhance accessibility for all and route to assessment within UCD if diagnosis is required to access resources.A system that is needs based rather than diagnosis based should be considered.

- Develop UCD Neurodiversity APP (akin to UMAAP) to support students and staff.

- Campaign/programme/training to make staff more aware of what accommodations and supports to which they are entitled.

- Service like ALL for staff suggested.

- Greater linkages between CAO and HEI. Option to disclose at CAO and automatic notification for HEI. Flagging in advance may be a smoother experience for students.

Awareness Raising and Pastoral Support

Suggestions

- There is a need for more formal training on neurodiversity for managers and employees. Training should be embedded in existing training programmes e.g. Teaching & Learning Certs, student onboarding, staff orientation and for managers.

- Training and awareness can also address reluctance to shift towards a neurodiversity friendly campus.

- Estates are often first responders, provide pastoral care for students and are the first port of call for visitors to the campus - there is a need for staff to be more aware of neurodiversity and perhaps an easy mechanism for people to disclose.

- Introductory lectures should touch on neurodiversity

- Neurodiversity Champions

- Celebrating Neurodiversity

- Develop specific coaching in Career Centre for ND students to support their knowledge of their rights to access supports/accommodations in the workplace. Target alumni to support/mentor/ champion the process.

- Identifying the roles and services for neurodivergent employees and students to access support.

- Could the name of DARE programme be changed?

Comments

Good EDI Training available but requires specific neurodiversity training.

A line manager noted that she would be unaware of what if anything could be provided to support a staff member if they disclosed a diagnosis relating to ND. Felt that there is inadequate training. Felt they could link with a HR partner but deemed this unlikely to be productive.

It was suggested that it would be helpful to have increased focus on these issues in staff orientation and to have increased access to courses and training.

The IT Services group felt they are 'last on the list' for training despite a high level of interest and when they do get a chance to do training it's often 'booked out'. Noted that the proportion of male colleagues attending events such as FG today does not reflect m:f ratio in their sector with male colleagues less likely to participate. It appears to the group that those most likely to 'need' training in EDI areas least likely to avail of the same. No incentivisation/acknowledgement for staff who do take on training and simply expected to 'absorb' into a busy schedule.

Harness strengths of the university environment – perceived high level of diversity and acceptance of the same – and increase training for everyone.

Digital Environment

Suggestions

- Accessibility should be an identified 'target' in all procurement/tenders relating to IT systems.

- Provide increased opportunities for different groups to work together with this tech group(experts within university with language and visual expertise relating to accessibility) to co-create more accessible systems.

- Explore ways to reduce time constraints which force a focus on functionality/turnaround time at the cost of accessibility.

- Review all systems/web materials for accessibility and design infographics and work flow systems.

Appendix 2: Gap Analysis: Focus Group Outputs

- Even with well designed accessible systems, some people will require 1:1 support with 'digitalisation' – this is expensive and challenging to scale up. May be possible for students but unlikely to be possible for staff.

- Higher exam results noted for some students during Covid and more tolerable exam experience (at home, comfortable etc) – invest in ways to have adequate systems to safely invigilate virtual exams.

- Engage with neurodivergent staff and students when developing forms.Online improvements e.g. pre-populated forms.

Built Environment

Comments

Inclusive design for neurodiversity should be embedded in pre-planning and layout of buildings.

Navigating the campus was highlighted. Better signage and maps would be useful.

Apparently minor issues can cause significant problems e.g. fluorescent lighting leading to migraine. Those that don't experience this, almost mock the idea.

PhDs can be dispersed and important that they can access supports and sensory spaces.

Suggestions

- Make changes to the sensory environment 'low hanging fruit' that could make a big impact.

- Design of spaces - lighting, heating, acoustics

- Enhance signage and maps online/physical.

- Quiet rooms and spaces - identify where these are.

- More research is needed into what works - some suggestions e.g. sensory pods are expensive and there is a lack of evidence as to their effectiveness. Not one size fits all e.g. quiet spaces commonly provided but others have a preference for different sensory environments - there is a need for a range of options on campus to suit a range of preferences.

- Investigate a range of options on campus to suit a range of preferences.

Comment: one group felt that there is very little meaningful action in relation to issues with physical environment in which they work. Reported that they have to bring hot water bottles to work. It is so cold in the winter and the reverse in summer. Queried whether if the intolerability of the working conditions were related to 'disability' their concerns would be taken more seriously. The only flexibility enacted is 'working from home' if their workplace (prefab) becomes too hot/cold. The 'open plan' nature of the office was also found to be problematic.

What strategic objectives in your area support the inclusion of neurodivergent employees/students?

Participants' awareness varied. Some identified the broad strategic objectives relating to EDI and inclusion. Others felt there was a general lack of awareness among staff and they are not aware of how the strategic objectives linked to their Unit/School might support/facilitate the inclusion of neurodivergent in employees/students. The examples below from participants show the difference across areas:

UCD Estates

- Neurodiversity is a hot topic in Estates and is a key focus for architects and others in the design and building of new spaces (e.g. furniture, space, space usage etc.). The building standards in relation to accessibility and neurodiversity are constantly being updated - the result being that relatively new buildings are already out of date in this regard. The big challenge for Estates in this area is retrofitting and refurbishment of older buildings. It is much easier to incorporate in new builds. Estates are constantly trying to future proof by going beyond the basic standard.

UCD IT Services

- All of the IT group felt that they were unaware of any strategic objectives in their unit/s that supported inclusion. Also felt that there was no focus on the idea of accessibility in online platforms/systems.

- All expressed the view that it is very striking that there is a significant awareness/push for accessibility in the physical environment but none in the virtual environment of which the group were aware.

- The group felt that the only target is quick outputs of 'functionality' without consideration of broader accessibility. Group noted that recently UCD has been focused on web redesign with a focus on accessibility due to identified issues/inadequacies being highlighted. However, this has not been incorporated into any of the objectives for student or staff platforms such as infohub.

Appendix 2: Gap Analysis: Focus Group Outputs

- Group highlighted more accessible designs are possible (for example with increased use of infographics and reduced text heavy texts), however, as this is not an identified objective and is very resource heavy (in terms of time), it is not something that is a focus.

- One person in the group (different role in Student office) noted that there is an increased number of students approaching the office with diagnoses and feels this represents increased awareness.

What were your impressions of the key findings related to students?

Surprised at the number of people waiting on a new diagnosis. The issues are complex and broad and there are no easy answers.Individual experiences vary greatly.It seems to be the luck of the draw when a student discloses in UCD as to whether they will receive a positive response - current system has an over-reliance on the kindness of individuals.

- Clear that a whole college approach is needed.

- Third level can pose issues for neurodiverse people who have coped in other environments.

- People unwilling to disclose. Onus on individuals to disclose to lecturer, staff etc.

- Supports disappearing after secondary school.

- The information about accessing supports is available and the process is relatively straightforward yet this is clearly not the message that some students are receiving

- There is mis-information about required documentation, nature of supports, needs assessment process etc.

- Students with dyslexia and other learning difficulties have a high rate of disclosure - there may have been a bias in the survey respondents for those with other neurodiverse conditions.

- There is a bias towards ADHD - with people often assuming that this is what is meant by neurodiversity.

- People do not understand what neurodiversity is (even if they think they do). This is likely to impact access to supports and resources.

- Need to provide training across all systems within UCD.

- Need for targeted training: Dependent on the age of staff – others may recognise challenges a person has likely reflective of an underlying condition while (age dependent) staff members themselves may not, i.e. older staff members less likely to self-diagnosis/recognise challenges.

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Start of Block: Information

Q1

Thank you for your participation in this short survey, which should take approximately 10 minutes to complete. This is an anonymous survey.

The UCD EDI* Neurodiversity Working Group is committed to creating an inclusive neurodiversity friendly University for all students and employees, in line with the UCD EDI Strategy and Action Plan: Key Priorities for 2021-2024. Your input will be hugely valuable in helping the Working Group to:

- Gather information from University employees and students about their knowledge, attitudes and experience of neurodiversity within UCD
- Explore the best ways of increasing awareness and understanding around neurodiversity among students and employees
- Support the recognition and promotion of good practices in this area within the University.

You will find a link on the following page with further information regarding the survey and what you can expect if you choose to take part. Please read it carefully.   If you do not understand any of the information and/or would like to discuss anything related to the project, please email Blánaid Gavin or Timmy Frawley at the contact details below.

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On behalf of the Neurodiversity Project Team.

 *Equality, Diversity and Inclusion

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Start of Block: Participant Information & Consent Form

Q2 Click here to read the participant information sheet before you select an option below.

I have read this consent form. I understand that I can refuse to participate in this survey. I have taken time to think carefully about my decision to participate. I freely consent to share my responses with the research team.   I understand my participation in this survey is entirely voluntary.   I confirm I am 18 years old or above.   I understand the uncertainty and risk of research as stated in this consent form.   I understand that if I agree to participate in an interview, I will need to provide my personal information such as my email address and phone number and may be subsequently contacted by the research team and that the interview will be recorded on video via Zoom. I understand that I can withdraw data within the designated timeframe as noted in the information sheet. I understand how my data will be processed, how long data will be stored, how it will be used, archiving of data and who will have access to it in the future.

○ I consent and am happy to proceed with the survey (1)

○ I do not consent and do not wish to proceed with the survey (2)

Skip To: End of Survey If Click here to read the participant information sheet before you select an option below.   I have... = I do not consent and do not wish to proceed with the survey

End of Block: Participant Information & Consent Form

Start of Block: Demographics

Q3 What is your gender?

○ Female (1)

○ Male (2)

○ Non-binary (note: gender non-binary is a person who does not identify exclusively as male or female) (3)

○ Self-declare (5) _____

○ Prefer not to say (6)

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Q4 What is your ethnic or cultural background?

○ Asian or Asian Irish: Chinese (1)

○ Asian or Asian Irish: Indian/Pakistani/Bangladeshi (2)

○ Asian or Asian Irish: Any other background (3)

○ Black or Black Irish: African (4)

○ Black or Black Irish: Any other Black background (5)

○ Other including mixed group/background: Arabic (6)

○ Other including mixed group/background: mixed background (7)

○ Other including mixed group/background: other (9)

○ White: Irish (10)

○ White: Irish Traveller (11)

○ White: Roma (12)

○ White: any other White background (13)

○ Not listed (14)

○ Prefer not to say (15)

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Q5 What is your age?

○ 18-24 (1)

○ 25-34 (2)

○ 35-44 (3)

○ 45-54 (4)

○ 55-64 (5)

○ 65+ (8)

Q6 What is your role in the University?

○ Faculty (3)

○ Staff (1)

○ Funded Research Contracts (11)

○ Technical (10)

○ Student-undergraduate (2)

○ Student-postgraduate (9)

Display This Question:

If What is your role in the University? = Staff

Or What is your role in the University? = Faculty

Or What is your role in the University? = Funded Research Contracts

Or What is your role in the University? = Technical

Q7 In which part of UCD do you work?

▼ UCD College of Arts and Humanities (1) ... President, Reports and VPs not listed above. (13)

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Q8 Which college are you a part of?

▼ UCD College of Arts and Humanities (1) ... UCD College of Science (6)

- -

Page Break ―――――――――――――――――――――――――――――

Q9 Have you heard of the term neurodiversity before?

◯ Yes-please describe what it means to you. (1)

_____

◯ No (2)

- -

Q10 Please list the different conditions you think neurodiversity includes?

_____

_____

_____

_____

_____

- -

Page Break ―――――――――――――――――――――――――――――

Q11 Do you think the term neurodiversity applies to you? For the purposes of this study, the term neurodiversity is used to describe conditions such as (but not limited to) those traditionally labelled as Attention Deficit Hyperactivity Disorder (ADHD) Autism, Specific

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Learning Difficulties such as dyslexia and dyscalculia, Developmental Coordination Disorder (DCD), dysgraphia and Tic Disorder etc.

○ Yes-previous professional diagnosis (1)

○ Yes-self diagnosis (5)

○ Yes-self diagnosis and awaiting diagnostic assessment (4)

○ Yes-awaiting diagnostic assessment (6)

○ Not sure (3)

○ No (2)

Display This Question:

If What is your role in the University? = Student-undergraduate

Or What is your role in the University? = Student-postgraduate

And If

Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Yes-previous professional diagnosis

Or Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Yes-previous professional diagnosis

Or Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Yes-self diagnosis

Or Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Yes-self diagnosis and awaiting diagnostic assessment

Or Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Yes-awaiting diagnostic assessment

Or Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Not sure

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Q12 Have you disclosed this to anyone at UCD? Tick all that apply.

○ Yes-Access and Lifelong Learning (1)

○ Yes-UCD Student Advisors (2)

○ Yes-UCD Student Counsellors (3)

○ Yes-Personal Tutor (4)

○ Yes-Lecturer (5)

○ Yes-others. Please list. (6)

_____

○ No (7)

Display This Question:

If What is your role in the University? = Faculty

Or What is your role in the University? = Staff

Or What is your role in the University? = Funded Research Contracts

Or What is your role in the University? = Technical

And If

Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Yes-previous professional diagnosis

Or Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Yes-self diagnosis

Or Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Yes-self diagnosis and awaiting diagnostic assessment

Or Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Yes-awaiting diagnostic assessment

Or Do you think the term neurodiversity applies to you? For the purposes of this study, the term neu... = Not sure

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Q13 Have you disclosed this to anyone at UCD? Please tick all that apply.

☐   Yes-Human Resources (3)

☐   Yes-Employee Assistance Service (9)

☐   Yes-Equality, Diversity and Inclusion (8)

☐   Yes- Manager (2)

☐   Yes- Colleague (1)

☐   Yes- others. Please list (6)

_____

☐   No (7)

Display This Question:

If Have you disclosed this to anyone at UCD? Please tick all that apply. = Yes-Human Resources

Or Have you disclosed this to anyone at UCD? Please tick all that apply. = Yes-Employee Assistance Service

Or Have you disclosed this to anyone at UCD? Please tick all that apply. = Yes-Equality, Diversity and Inclusion

Or Have you disclosed this to anyone at UCD? Please tick all that apply. = Yes- Manager

Or Have you disclosed this to anyone at UCD? Please tick all that apply. = Yes- Colleague

Or Have you disclosed this to anyone at UCD? Please tick all that apply. = Yes- others. Please list

Or Have you disclosed this to anyone at UCD? Tick all that apply. = Yes-Access and Lifelong Learning

Or Have you disclosed this to anyone at UCD? Tick all that apply. = Yes-UCD Student Advisors

Or Have you disclosed this to anyone at UCD? Tick all that apply. = Yes-UCD Student Counsellors

Or Have you disclosed this to anyone at UCD? Tick all that apply. = Yes-Personal Tutor

Or Have you disclosed this to anyone at UCD? Tick all that apply. = Yes-Lecturer

Or Have you disclosed this to anyone at UCD? Tick all that apply. = Yes-others. Please list.

Q14 Was this a positive experience for you?

○ Yes-please elaborate (2) _____

○ No-please elaborate (3) _____

End of Block: Demographics

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Start of Block: Knowledge and Understanding-Students

Q15 Do you have personal experience of neurodiversity in your family or friend group?

☐   Yes, family (2)

☐   Yes, friend group (3)

☐   Yes, both (4)

☐   No (6)

— —

Page Break ——————————————————————

Q16 Do you have any direct experience of engaging with supports or services within UCD in relation to neurodiversity?

◯ Yes (3)

◯ No (4)

— —

Display This Question:

If Do you have any direct experience of engaging with supports or services within UCD in relation to... = Yes

Q17 Please select the supports and services that you have direct experience of engaging with in UCD in relation to neurodiversity?

☐   UCD Access & Lifelong Learning (ALL) (1)

☐   UCD Student Advisors (2)

☐   UCD Student Counsellors (3)

☐   Other-please list (4)

_____

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Q18 Reasonable accommodations are defined as those actions that enable students to learn to their full potential.
Do you think reasonable accommodations should be provided:

	Please indicate a response for each area		Please elaborate on your answer
	Yes (1)	No (2)	(1)
In all aspects of teaching? (4)	○	○	
In all assessments? (5)	○	○	

Q19 Do you think neurodiversity impacts future career progression for students? Please expand on your answer.

○ Yes (4) _____

○ No (5) _____

Page Break ————————————————————————————

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Q20 Do you experience any sensory barriers in the UCD physical and/or digital environment? If yes, please tick all that apply.

☐   Physical environment (e.g. building, outdoor spaces, signage.....) Please describe (1) _____

☐   Digital environment (e.g. IT systems, Brightspace, Registration, e-communications, infohub etc) Please describe (2)
_____

☐   No (3)

Q21 What do you think UCD does well in relation to neurodiversity?

_____

_____

_____

_____

_____

Q22 What suggestions would you make to enhance UCD as a neurodiversity friendly campus?

_____

_____

_____

_____

_____

Q23 Please outline any other comments you would like to make relating to neurodiversity within the UCD community.

_____

_____

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

_____

_____

_____

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Page Break —————————————————————————————

End of Block: Knowledge and Understanding-Students

Start of Block: Knowledge and Understanding-Faculty and Staff

Q24 Do you have personal experience of neurodiversity in your family or friend group?

☐ Yes, family (2)

☐ Yes, friend group (3)

☐ Yes, both (4)

☐ No (6)

- -

Q25 Do you have experience of neurodiversity in your work with colleagues or students?

◯ Yes-Please elaborate on your answer (1)

_____

◯ No (2)

- -

Page Break —————————————————————————————

Q26 Do you have any direct experience of engaging with supports or services within UCD in relation to neurodiversity?

◯ Yes (3)

◯ No (7)

- -

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Q27 Please select the supports and services that you have direct experience of engaging with in UCD in relation to neurodiversity?

☐ Employee Assistance Service (1)

☐ Human Resources (2)

☐ Equality, Diversity and Inclusion (3)

☐ Other-please state (4)

_____

Q28 Reasonable accommodations are defined as those actions that enable students to learn to their full potential.
 Do you think reasonable accommodations should be provided:

	Please indicate a response for each area		Please elaborate on your answer
	Yes (1)	No (2)	Answer 1 (1)
In all aspects of teaching? (1)	○	○	
In all assessments? (2)	○	○	

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Q29 In relation to employment, Reasonable Accommodation can be defined as some modification to tasks or the structure of a job or the workplace at nominal cost which allows a qualified employee with a disability to fully do their job and enjoy equal employment opportunities.
 Do you think reasonable accommodations should be provided in the workplace in relation to neurodiversity?

○ Yes-please elaborate on your answer (1)

_____

○ No-please elaborate on your answer (2)

_____

Q30 Do you think neurodiversity impacts future career progression for students? Please expand on your answer.

○ Yes (4) _____

○ No (5) _____

Q31 Do you think neurodiversity impacts career progression for staff within UCD? Please expand on your answer.

○ Yes (1) _____

○ No (2) _____

Page Break ————————————————————————————————

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Appendix 3: Online Survey of Students and Employees

Making UCD a Neurodiversity Friendly Campus - Student, Staff & Faculty Survey

Q32 Do you experience any sensory barriers in the UCD physical and/or digital environment? If yes, please tick all that apply.

☐ Physical environment (e.g. building, outdoor spaces, signage etc....) Please describe (1) _____

☐ Digital environment (e.g. IT systems, Brightspace, Registration, e-communications, infohub etc) Please describe (2)

_____

☐ No (3)

Q33 What do you think UCD does well in relation to neurodiversity?

_____

_____

_____

_____

_____

Q34 What suggestions would you make to enhance UCD as a neurodiversity friendly campus?

_____

_____

_____

_____

_____

Q35 Please outline any other comments you would like to make relating to neurodiversity within the UCD community.

_____

_____

Appendix 4: Topic Guide Qualitative Interviews

Topic Guide - Interviews

BRIEFING / INTRODUCTION

Prompts: Thank you, introduction, length of the interview, break - anytime, stop and withdraw anytime, recording, pseudonymisation and confidentiality, opportunity to review the transcript, any questions?
CONSENT

Topic guide questions:

- Can you tell me more about yourself and your role as staff/student?

- Can you tell me about your experiences relating to Neurodiversity within UCD?

- What aspects (if any) were the most challenging?

    - Have you availed of any supports within the University?

- Do you have any views on disclosure?

- If you could have any kind of support measures available to you today, what would be the key elements that would be helpful to you?

- What would make it easier/harder to accessing these measures

- "Mopping up question - anything else they would like to share

- Conclusion

Thank you, reminder that requests for deletion of data can be accommodated up to 7 days after the interviews, ask participants if they would like to be informed of the results at the end of the project.

Appendix 5: Sensory Audit

Building	
1A: Layout	
Is the environment suitable for people who seek movement?	Issues were identified in the environment that included it being unsuitable for those who seek movement, the layout was not predictable and logical or based on clean lines. Spaces were not found to be easy to navigate. In addition to this issues were identified with inadequate space between furniture, and the presence of clutter/unnecessary obstruction.
Is the layout predictable and logical?	
Is the layout based on clean lines?	
Are spaces easy to navigate?	Significant issues presented with regards to quiet spaces or spaces to escape to. Auditors repeatedly experienced a lack of indoor or outdoor space to 'escape to', screened off areas or spaces that were quiet. A lack of designated sensory room/quiet space across the audited areas was also clear from auditor responses.
Is there adequate space between furniture?	
Is there an absence of clutter/unnecessary obstruction?	
Are there screened off areas?	"Quiet spaces exist (on the 1st floor) but are not designated as such and are little-known"
Are there spaces which are quiet?	
Are there designated sensory rooms/quiet spaces?	"No central space for quiet. No central space for women in an overwhelmingly male environment, which mitigates against use of even the few group spaces in the building." (- is there any context?)
Is there an indoor space to 'escape to'?	
Is there an outdoor space to 'escape to'?	
1B: Light	
Is the illumination in the room suitable ?	Concerns were evident in the following areas: Auditors found that the illumination in rooms was not always suitable, glass meeting rooms were not always fitted with blinds, and blinds/shade were not always available to block strong sunlight. Flickering lights were also identified as an issue, as well as being unable to alter the intensity of the light. The presence of fluorescent lighting was strongly indicated by audit responses.
Is there fluorescent lighting?	
Are the lights flickering?	
Can the intensity of the light be altered (for example dimmer switches?	
Are blinds or other forms of shade available to block strong sunlight?	"Fluorescent lighting and strong blue light from the projector screens, no natural light"
Are glass meeting rooms fitted with blinds?	"The lighting is horrendous."
1C: Decor	
Are there any strong patterns on décor?	Issues were identified particularly around a lack of natural materials, indoor greenery/plants and water features. Issues were also identified with strong patterns, bright fluorescent or neon colours and sensory overload in the decor.
Are there any bright, fluorescent or neon colours?	
Is sensory overload avoided in decor?	
Are there natural materials?	"There is a great deal of visual clutter, by design and by habit (e.g. posters)"
Is there indoor greenery/plants?	"Cement cinderblocks are everywhere. Carpets have zigzag patterns which are awful for visual processing."
Are there water features?	
1D: Signage	
Are signs easy to understand?	This was an area with specific scope for improvement, issues across the board included signage not being supported by symbols, pictures or colour coded symbols. Areas for improvement were also highlighted with regard to the presence of misleading arrows or maps, lack of clear signs to indicate the use of a room, and signs not being easy to understand.
Are there misleading arrows or maps?	
Is there use of colour coded symbols?	
Are there clear signs to indicate the use of each room?	"The colour-coded lines directing people to each zone are useful but limited (and are rarely noticed)"
Is signage supported by use of symbols or pictures?	"Signs hanging off the ceiling is small and hard to read and requires someone to look up towards fluorescent lights to read, no colour symbols used"

Appendix 5: Sensory Audit

Evaluate the following statements (Auditory)	
Is there a high level of background/general noise?	Issues were highlighted with there being a high level of background noise in the area of audit, as well as sounds from crowded spaces, equipment, squeaky chairs, flooring/footsteps and meeting rooms. Auditors also highlighted the experience of high pitched sounds, and sudden loud noises in the places of audit. The presence of sound from traffic was also identified.
Are there sounds from equipment?	
Are there sounds from squeaky chairs?	
Are there sounds from flooring/footsteps?	
Are there sounds from traffic?	"The old building material in x (concrete walls, linoleum floors) amplify all ambient noises on the ground floor. The effect is strong: conversations between a couple of people can be heard further than in an open-air environment, and multiple conversations combine to create a very distracting (and, for some, frightening) ambient noise. All floors above the ground floor tend to be much quieter and better sound-proofed."
Are there sounds from meeting rooms?	
Are there sounds from crowded spaces?	
Are there high pitched sounds?	
Can sudden loud noises be heard?	"because of the open floor plan sound travels up through the different levels"

Evaluate the following statements (Olfactory)	
Are all toilets sited away from work areas?	The presence of unexpected odours or unexpected food odours was noted as well as unexpected odours from paint or cleaning materials, and odours from labs or other practical rooms. Toilets were not always sited away from work areas.
Are there any unexpected odours?	
Are there any unexpected food odours?	
Are there any unexpected odours from paint or cleaning materials	"the microwaves should be downstairs by the cafe and not upstairs next to study spaces"
Are there any odours from laboratories or other practical rooms?	

Evaluate the following statements (?Tactile?)	
Are materials used in seating smooth and soft?	Auditors indicated that there were materials used in seating that were not smooth and soft, and there was use of materials that caused pain, distraction or comfort. There was little elaboration on the nature of the pain, distraction or discomfort. Open text responses indicated issues more related to discomfort i.e "Fabrics not pleasant to touch…", "…high chairs uncomfortable and squeaky…", "…high back study pods and some high back individual chairs but these are located next to the window next to a lot of visual stimuli outside of the library
Are there materials used that cause pain, distraction or discomfort?	
Do furnishing fabrics have a strong/busy pattern?	
	"The furniture is generally one solid colour (e,g, purple or green), high chairs uncomfortable and squeaky, low sofas. Also have high back study pods and some high back individual chairs but these are located next to the window next to a lot of visual stimuli outside of the library"
	"Mixture of fabric and washable seating. Fabrics not pleasant to touch and sometimes not clean."

Evaluate the following statements: Temperature	
Is the temperature comfortable?	Issues were noted with being unable to control/alter the temperature, a lack of natural air circulation, and the temperature not being comfortable.
Can the temperature be controlled/altered?	"The ground floor of the building is almost always cold. Due to its expanse and common-use purpose, there is no way for day-to-day users to alter the temperature. Floors above tend to be warmer."
[Is there natural air circulating?]	

Appendix 5: Sensory Audit

Open space areas/areas	
Layout	
Is the layout predictable and logical?	Issues were highlighted with the layout not being predictable and logical, spaces being difficult to navigate and the presence of unnecessary obstruction. Auditors identified issues with sensory overload and access to spaces which are quiet.
Are spaces easy to navigate?	
Is there an absence of unnecessary obstruction?	
	"At times the area can be overwhelming with the amount of people moving around and the noise level."
Are there spaces which are quiet?	"Lots of steps which are inaccessible"
Is there sensory overload?	"Sometimes if there are a lot of people sitting outside it can become a little overwhelming, but overall it is a very pleasant space."
Signage	
Are signs easy to understand?	The most noted issue with signage was that they were not easy to understand. The absence of colour coded symbols was also noted, followed by the presence of misleading arrows or maps in some areas.
Are there misleading arrows or maps?	
Is there use of colour coded symbols?	"Partial coding but signage could definitely be improved."
	"There are not enough glear signs indicating what building is what."
Auditory	
Is there a high level of background/general noise?	The audit highlighted issues around the presences of high level background/ general noise, sounds from crowded spaces and sudden loud noises being heard. Issues were also noted with sounds from traffic, equipment and high pitched sounds.
Are there sounds from equipment?	
Are there sounds from traffic?	"Food vendors here on a Thursday so lots of equipment, vehicles, talking, at lunch time it gets very crowded with students"
Are there sounds from crowded spaces?	
Are there high pitched sounds?	"sometimes people walk their dogs and there might be a sudden noise from them barking, but that's not an overly common occurance. There can be a high level of noise in the warmer months when people are playing football, or just chatting outside and listening to music. When there's repairs or maintenance being done in the area it can be loud with machinery. For example, when the trees were being trimmed."
Can sudden loud noises be heard?	
Olfactory	
Are there any unexpected odours?	Auditors noted there were unexpected odours in the audit areas, as well as unexpected odours from food/paint or building materials.
Are there any unexpected food odours?	
Are there any unexpected odours from paint or building materials?	"I suppose they aren't unexpected cause the food market is here today but its a lot of mix of different odours"

Appendix 5: Sensory Audit

Digital area/areas	
Is the digital layout predictable and logical?	With regard to the digital areas, auditors highlighted issues with the predictability and logic of the layout, the use of strong colour and sensory overload. They also highlighted that there wasn't any specific content/functionality that accommodates neurodiversity in the area they audited, the layout was not easy to navigate in some areas, and there was a presence of unnecessary content. Typeface wasn't easy to read in some areas and there was overload in colour, layout and patterns/symbols
Does the content describe any specific guidance of accommodations in the layout/funactionality to accommodate neurodiversity?	
Is there any specific content/functionality that accommodates to neurodiversity?	
Is the layout easy to navigate?	"The above is just in relation to the slideshow being shown on screen. Noise and talking in the lecture theatres make it virtually impossible for me to hear the lecturer as I am unable to filter out background noise. I spend twice the time on lectures as I need to relisten to my badly recorded lectures at home. I would benefit hugely from having access to recorded lectures as a student with ADHD. I understand that the preference is to have students attend lectures in person but for neurodivergent students we really do need the option to access the content online if we are to be given the same chance of achieving our best."
Is there an absence of unnecessary content?	
Is the colour strong?	
Is overload avoided in colour, layout and patterns/symbols?	
Is typeface easy to read?	"Generallly, tutors use brightspace in a clear and logical way. I believe there are accessability features on brightspace, but I don't know how many tutors actually use them."
Is there any sensory overload?	

UCD EDI Neurodiversity Working Group

Scan to view digital version of report on the UCD EDI website
www.ucd.ie/equality/support/neurodiversity/report