

PATHWAYS TO EMPLOYMENT: EXPLORING NEURODIVERSITY IN APPRENTICESHIPS IN SCOTLAND





INTRODUCTION

Apprenticeships have always been a feature of the pathway into employment landscape in Scotland. From shipyards to law firms, for centuries young people have occupied apprenticeship roles in order to enter into and progress within the workplace.

A more systematised version of apprenticeships has been in place in the UK, including Scotland, since the mid-1990s. In Scotland, this now comprises 3 specific apprenticeship schemes: Foundation, Modern and Graduate Apprenticeships. In this report we will look at these 3 schemes, with a particular interest in how neurodiversity is represented within the available data.

The scheme of this report is:

- ▶ **A brief outline of neurodiversity and neurodivergence**
- ▶ **Neurodiversity and employment**
 - Key policy developments in post-school destinations
 - A brief overview of apprenticeships
- ▶ **Data observations**
 - Disability generally
 - Foundation apprenticeships
 - Modern apprenticeships
 - Graduate apprenticeships
 - Lived experience
- ▶ **Observations from practice**
- ▶ **Summary and recommendations for further research**
- ▶ **Acknowledgements**
- ▶ **Appendix One: Lived experience of pathways into employment**

NEURODIVERSITY AND NEURODIVERGENCE

We explain neurodiversity and neurodivergence as follows:

Neurodiversity means there is a wide variation in brain processes. Neurodiversity causes differences in individuals' experiences and behaviours. Sometimes this creates a big enough difference to correspond with a label such as autism or ADHD (attention deficit hyperactivity disorder). One person cannot be neurodiverse, but a group of people may be neurodiverse if they differ in their neurotype. Individuals who do not have such variation in the way their brain processes information are often described as neurotypical.

If you experience a barrier to learning, you may be neurodivergent. Someone with autism, dyslexia, ADHD, developmental coordination disorder or Tourette syndrome could be described as neurodivergent.





NEURODIVERSITY AND EMPLOYMENT

Many neurodivergent employees bring unique strengths to their employment, which can greatly enhance the talent pool. With a supportive and understanding employer, and with adaptations available if required, neurodivergent workers will thrive. However, workplaces can also present challenges for neurodivergent employees, and there are disparities in the opportunities for them to enter and sustain employment. For example:

- ▶ Only 16% of autistic adults are in employment¹
- ▶ Less than 20% of neurodivergent adults aged 16 to 64 are employed. The next lowest rate of employment is those with epilepsy, at 37%²
- ▶ In a study of neurodivergent employees, only 29.9% had formal adjustments at work³
- ▶ In a survey of employers only 22% reported having an Equality, Diversity and Inclusion policy with a focus on neurodiversity⁴

Key policy developments in post-school destinations

The Scottish Government has made a commitment to improving the lives of neurodivergent individuals through various policies and legislation. The Additional Support for Learning Act 2004 (as amended), the Standards in Scotland's Schools etc. Act 2000, and the Equality Act 2010 are key pieces of legislation that aim to protect neurodivergent individuals from discrimination, promote equality of opportunity, and ensure that the purpose of education is to help each individual to achieve their fullest potential.

Additionally, the Scottish Government has launched several initiatives aimed at supporting young people's transition into employment. No One Left Behind, aimed at helping people to find, stay and progress in sustainable work and the Young Person's Guarantee, are two such initiatives that aim to ensure every young person in Scotland has the opportunity to succeed.⁵ The Scottish Government has also pledged to tackle the attainment gap with additional resources and efforts to support educational catch up, which is particularly relevant for neurodivergent individuals who might face additional challenges in education and employment.

¹ National Autistic Society (NAS), cited in CIPD report 2018 https://www.cipd.org/globalassets/media/knowledge/knowledge-hub/guides/neurodiversity-at-work_2018_tcm18-37852.pdf (Accessed 09/10/23)

² Closing the Neurodiversity Employment Gap (2022) North East England Chamber of Commerce <https://www.neechamber.co.uk/closing-the-neurodiversity-employment-gap-2/> (Accessed 21/07/23)

³ McDowall, Almuth and Doyle, Nancy and Kiseleva, Meg (2023) Neurodiversity at work: demand, supply and a gap analysis. Birkbeck, University of London, London, UK. : <https://eprints.bbk.ac.uk/id/eprint/50834/>

⁴ ibid

⁵ Mackay, Simpson & Miller (2023) *Implementation Evaluation of No One Left Behind and the Young Person's Guarantee* Ipsos. UK.



However, despite these policy drivers, under-employment and in-work poverty persist for many young people, and a recent Joseph Rowntree Foundation report notes that ‘around 1 in 10 adults experiencing in-work poverty are aged 16–24.’⁶ There would therefore seem to be an important role for Apprenticeships to play as a formalized pathway into employment.

A brief overview of apprenticeships

In Scotland, Apprenticeships are delivered by Skills Development Scotland, the national skills body. The Scottish Apprenticeship Advisory Board ‘provides employer leadership and contributes to the development of apprenticeships in Scotland’.⁷

Foundation Apprenticeships were introduced in 2016 and allow pupils to engage in work-based learning while still at secondary school. They are designed to enhance and expand existing pathways from school, with multiple progression routes on completion to work (including Modern and Graduate Apprenticeships), college, or university.

Modern Apprenticeships date back to the mid-1990s. They provide employed individuals with the opportunity to secure industry-recognised qualifications at a range of Scottish Credit and Qualifications Framework (SCQF) levels while in employment.

Graduate Apprenticeships are newer, dating to 2017/18. They are industry-recognised, accredited degree-level qualifications, available from Diploma up to master’s degree-level qualification and are mapped to the Scottish Credit and Qualifications Framework (SCQF). Graduate Apprenticeships (GAs) are delivered via partnerships between employers and universities where the apprentice is in paid employment for the duration of their studies. Like Modern Apprenticeships, demand for GAs is employer-led and employers either recruit new staff into a GA position or offer a GA position to an existing member of their workforce. The curriculum and the methods of delivery and assessment are tailored to individual employer needs.

Responsibility for the funding of Graduate Apprenticeships transitioned to the Scottish Funding Council (SFC), for any new enrolments from the academic year 2021/22 onward. The Scottish Funding Council is accountable for the funding it allocates to universities and to ensure that university provision is of high quality. SDS and SFC are working in collaboration to support the delivery of Graduate Apprenticeships.

“ There would seem to be an important role for Apprenticeships to play as a formalised pathway into employment ”

⁶ *Poverty in Scotland 2023*, Joseph Rowntree Foundation <https://www.jrf.org.uk/report/poverty-scotland-2023> (Accessed 09/10/23)

⁷ *Young people: training and employment* Scottish Government <https://www.gov.scot/policies/young-people-training-employment/apprenticeships/> (Accessed 14/07/23). Note: the role of Skills Development Scotland in managing Apprenticeships is under review.



DATA OBSERVATIONS

There is a wealth of data on Apprenticeships available on the Skills Development Scotland (SDS) website. However, this is high level data, and there is a need to delve below the surface to gain a better understanding of the journey made by neurodivergent people into and through the various Apprenticeship models. Mindroom did seek more granular data from Skills Development Scotland, but we were advised that although information had been gathered about neurodivergent conditions, it could not be shared due to the relatively small number of data observations.

We have carried out an analysis of the available SDS data and detail below our key observations. In addition, we have fed back to Skills Development Scotland that our in-depth look across the three Apprenticeship programmes has identified some key gaps and anomalies in the data. We indicated these were:

“ There is a need to delve below the surface to gain a better understanding of the journey made by neurodivergent people in and through Apprenticeships ”

- ▶ The collection of disability data is different in the Foundation (FA) and Modern (MA) programmes: In FA, the dataset asks about disability status (Yes/No/Prefer not to say). In the MA, the disability question in the dataset is different (Impairment, health condition or learning difficulty/No impairment, health condition or learning difficulty/Prefer not to say).⁸
- ▶ Apprenticeship programmes run over different time periods, so the data collection differs across the programmes: FA follows the academic year, MA/GA follow the financial year.
- ▶ Trying to identify Apprenticeships within the school leaver destination data is not possible: FAs are still in school, so the destination data is not applicable. MA and GA are contained with the employment destination, but this also includes non-MA/GA employment, so disaggregation is not possible.

⁸ Since writing our report, we understand these questions have now been aligned to ask for the same information about disability.



DATA: Disability generally

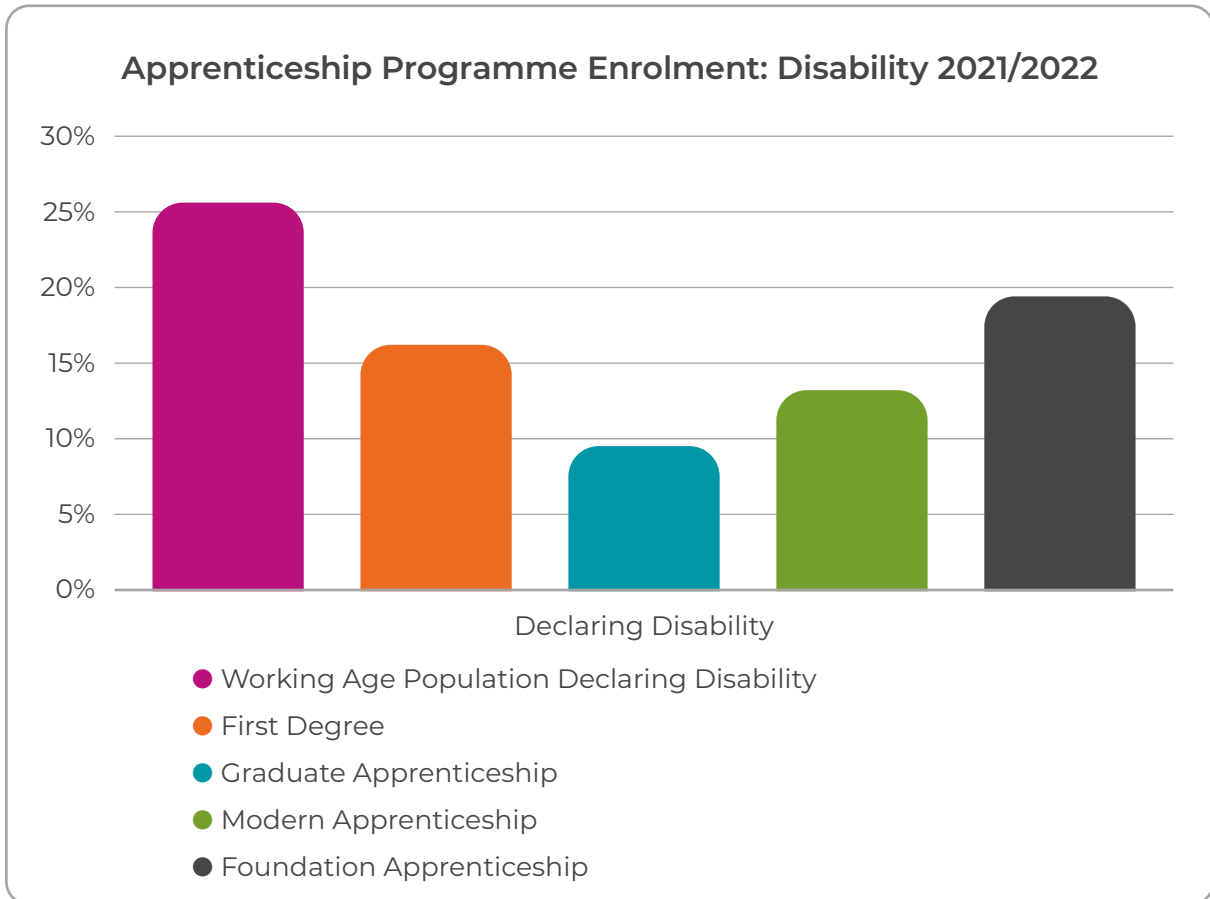


Chart D1: Disabled Population Accessing Apprenticeship Programmes 2021/2022

As chart D1 shows, self-declared disability occurs at lower levels in the Apprenticeship programmes than in the general working age population. Disclosure among Graduate Apprentices is lower than for those undertaking a first degree. Within the Apprenticeship programmes, the rate of disclosure is highest among Foundation Apprentices.



DATA: Foundation Apprenticeships

As chart FA1 shows, there has been a significant growth in recorded disability status, particularly between 2018 and 2020. Meanwhile, between 2019 and 2021, there is more disability disclosure at the higher level of entry (SCQF level 6) than in the level 4/5 pilot FA entrants (chart FA2).

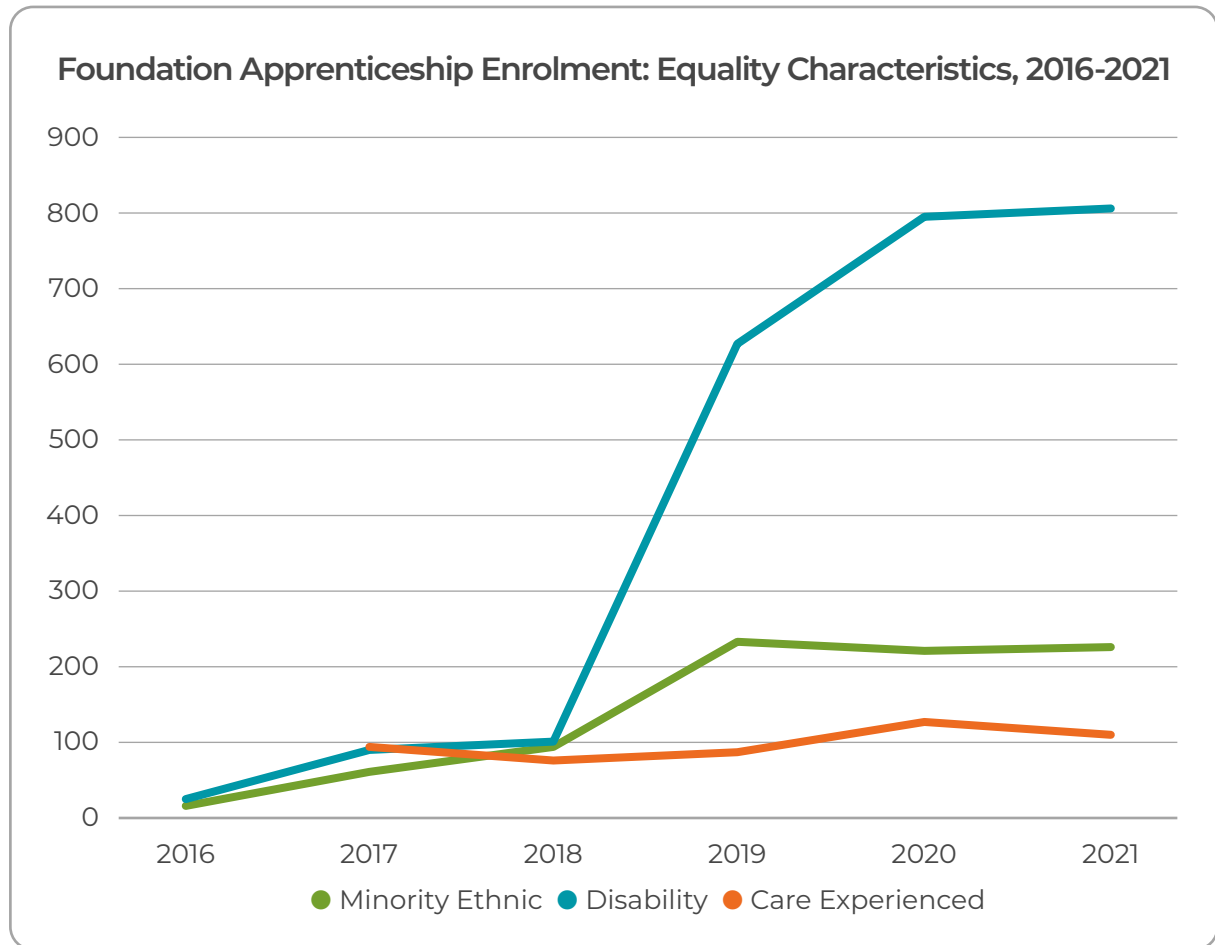


Chart FA1: Includes both Cohort Level 6 and the Level 4 & 5 Pilot

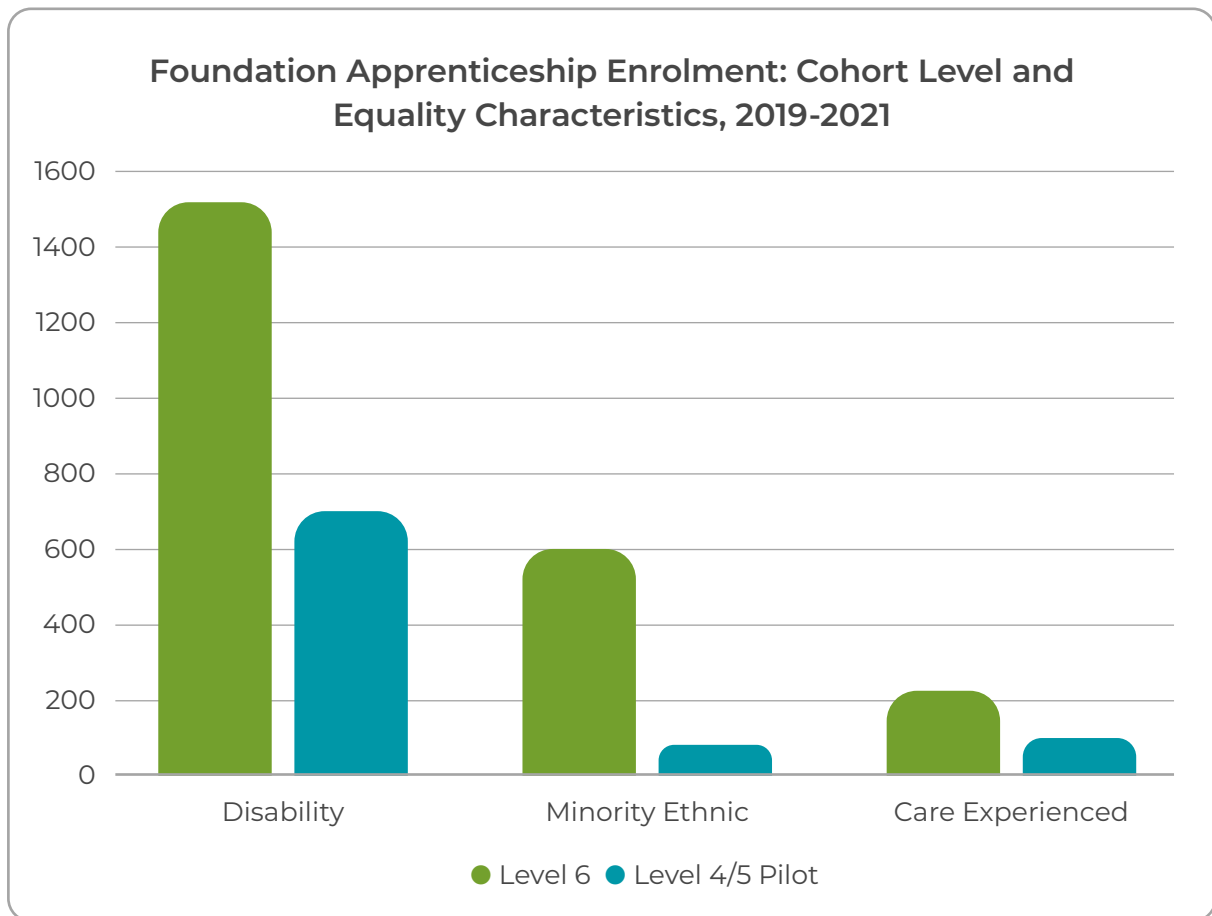


Chart FA2: Starts by Cohort Level and Equalities characteristics 2019 – 2021

In their 2022 report on Foundation Apprenticeships, Skills Development Scotland identify that the frameworks at SCQF L6 with the highest proportion of pupils self-identifying a disability were the two social services frameworks (48.2%) and Creative and Digital Media (18.0%). At SCQF L4/5 (pilot), Construction at SCQF L5 had the highest proportion of pupils self-identifying a disability (29.5%).⁹

⁹ Foundation Apprenticeship Report (2023) Scottish funding Council and Skills Development Scotland <https://www.skillsdevelopmentscotland.co.uk/media/50223/foundation-apprenticeship-report-2022-published-version.pdf> (accessed 21/07/23)



DATA: Modern Apprenticeships

The equality characteristics that are contained in the Modern Apprenticeship data comprise:

Male

Female

Disabled

Minority ethnic

Care experienced

There is evidence of a steady increase in those declaring a disability in the past 10 years.

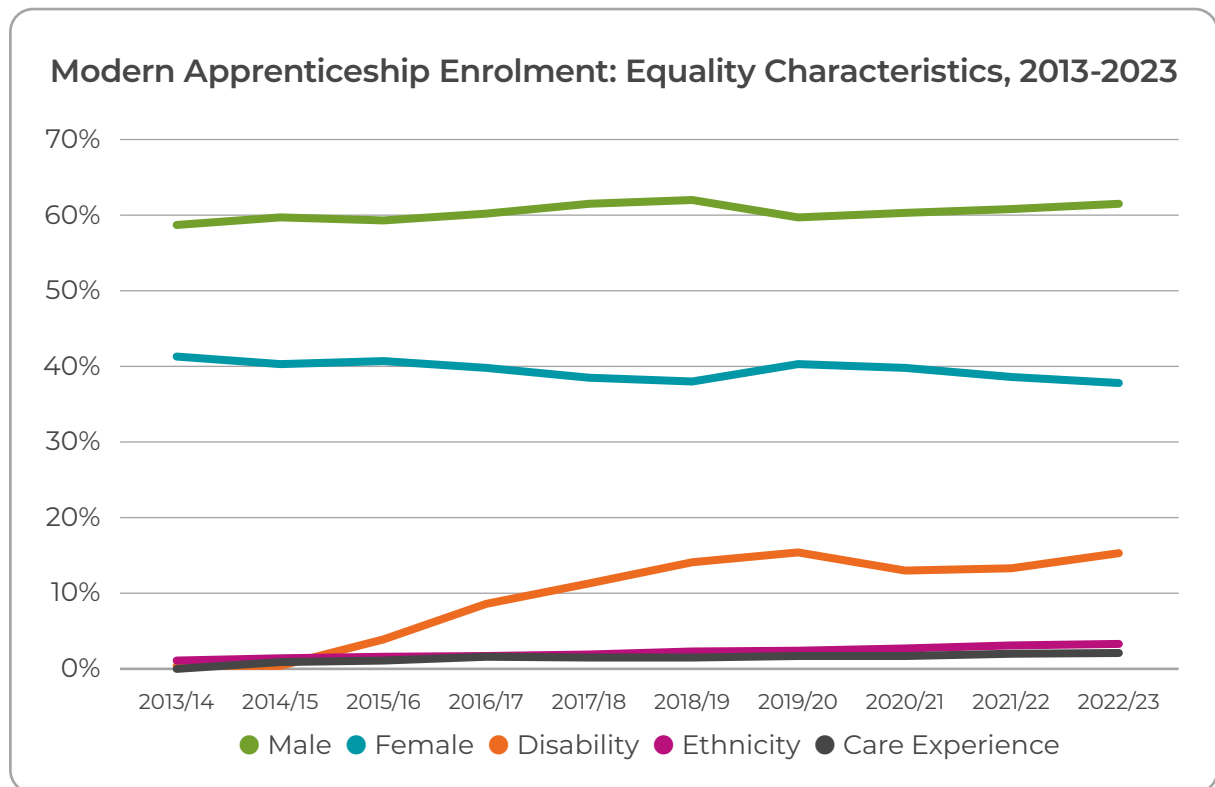


Chart MA1: Starts – Equality Characteristics 2013 -2023

When cross-referencing disability with gender, 18% are male, 30% female and 52% opted for Prefer not to say – see Figure MA1 overleaf.



Modern Apprenticeship Enrolment: Disability and Gender, 2023

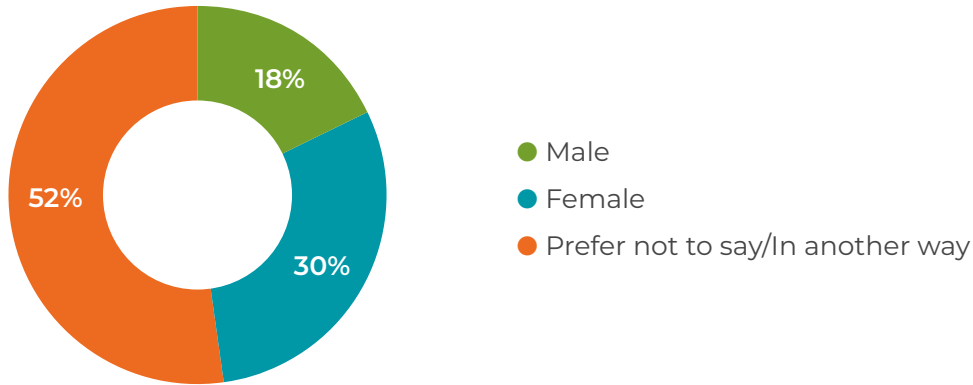


Figure MA1: Starts by disability status and gender 2023

In terms of age groups, the rates declaring a disability appear as:

- ▶ 16-19 years 35%
- ▶ 20-24 years 40%
- ▶ 25+ years 25%

As Chart MA2 shows, there is some variation of disability status in the differing SCQF levels, with a noticeable dip from level 5 to level 6, and lowest rates of disability status at the highest SCQF level, 11.

Modern Apprenticeship Enrolment: Disability Status and SCQF Level, 2022/23

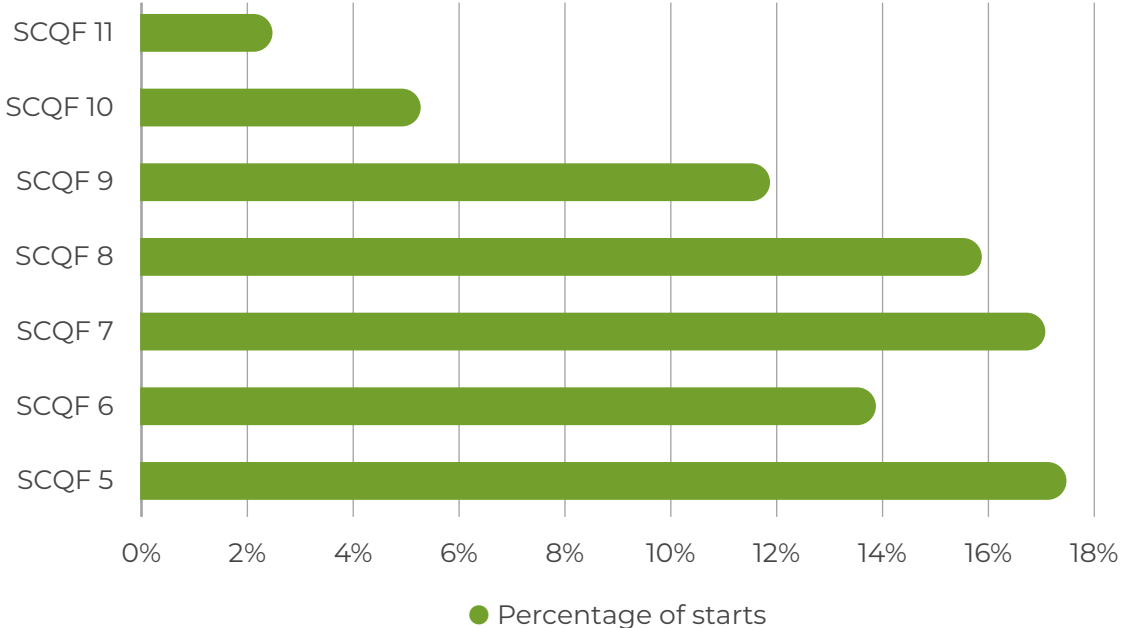


Chart MA2: Starts by disability status and SCQF level 2022/2023



In terms of achievements, disability status is broadly on a par with other equality characteristics and is marginally less disadvantageous than for those with care-experience status (Chart MA3).

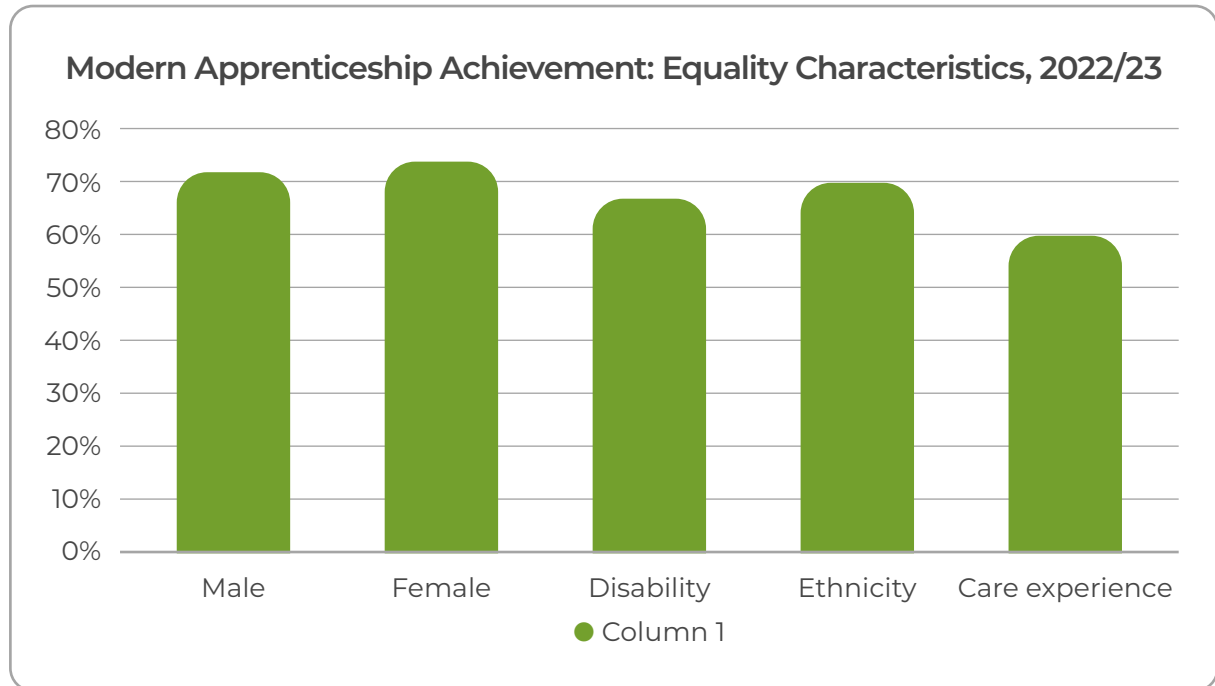


Chart MA3: Achievement by Equality Characteristics 2022/2023

Similarly, the ‘no achievement’ data (i.e. those who do not complete the Modern Apprenticeship programme) show that the most likely group to fall into this category are those who are care experienced, with declared disability status the next most likely. (Chart MA4).

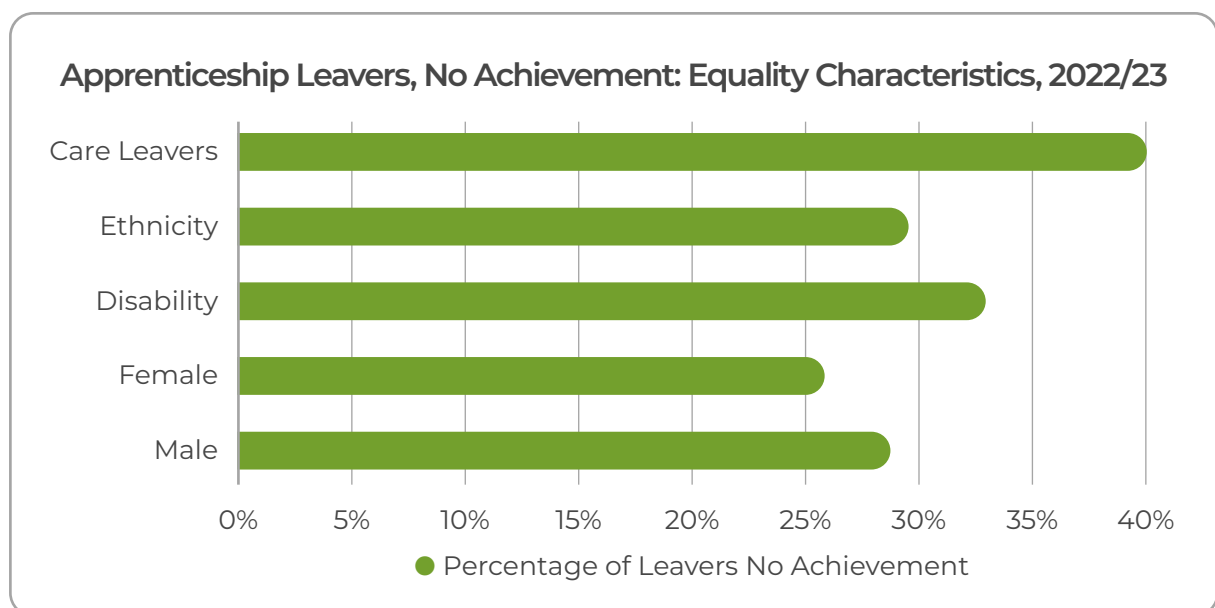


Chart MA4: Leavers No Achievement by Equality Characteristics 2022/2023



DATA: Graduate Apprenticeships

Graduate Apprenticeships are relatively new, and currently account for less than 1.0% of university entrants. They can be studied at SCQF levels 9, 10 and 11.

As noted above, the disability status of GAs is self-declared as: impairment, health condition, or learning disability.

Graduate Apprentices are less likely than the national population to declare a disability – at 40% of the rate of the national population (Chart GA1). This disparity is also evident in the GA starts data, where the rate of disability is low and flat over the period 2017 – 2023 (Chart GA2). SDS reports that: '16.3% of Scottish-domiciled entrants to full-time first-degree courses at university had a declared disability. In 2020/2021 and in 2021/22, the proportion of GAs self-declaring an impairment, health condition, or learning disability was 9.6%, having decreased from its peak in 2019/20.¹⁰ (Peak = 10%).

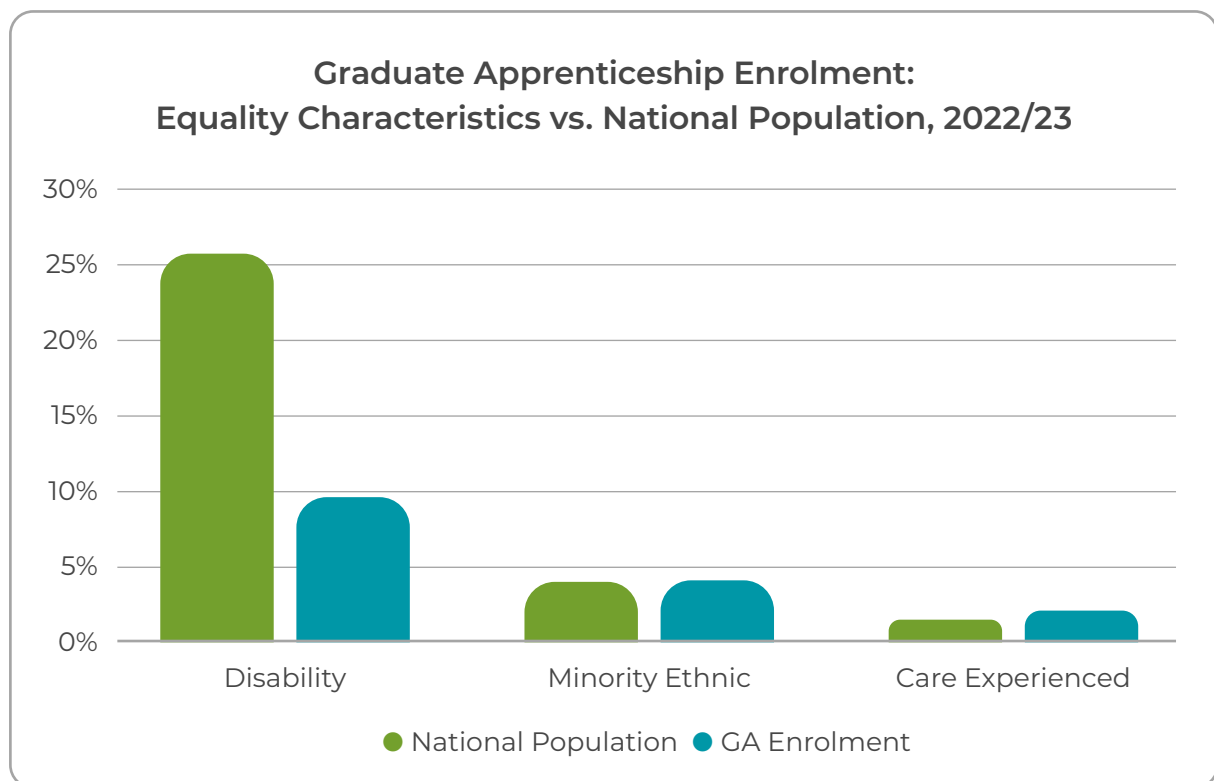


Chart GA1: Equality Characteristics: Enrolment in comparison to the national population 2022/2023

¹⁰ <https://www.skillsdevelopmentscotland.co.uk/media/49924/graduate-apprenticeship-annual-report-2022-final.pdf> (accessed on 11/08/23)

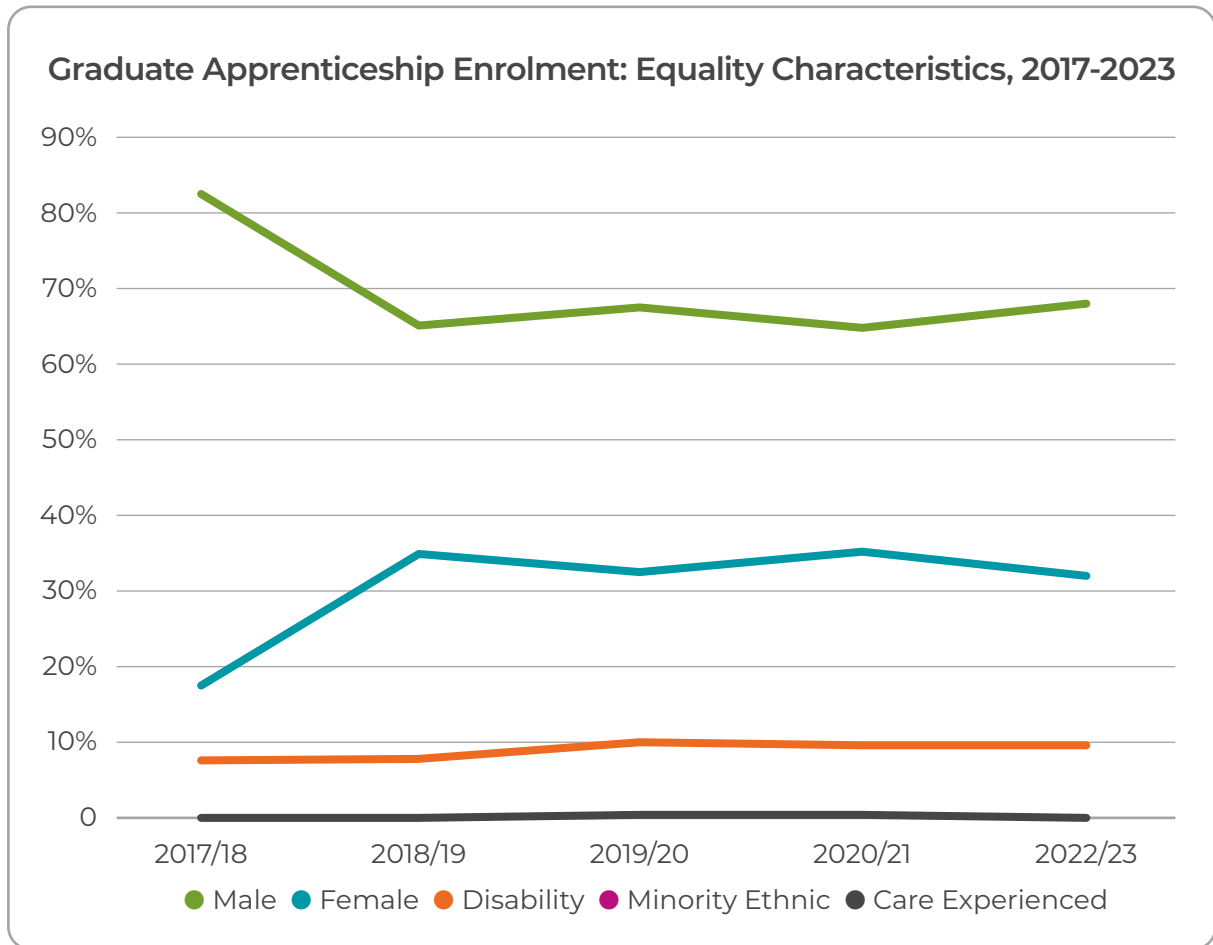


Chart GA2: Starts by Equality Characteristics 2017 – 2023

DATA: Lived Experience

In order to augment the quantitative data extracted from various SDS statistical publications, we interviewed two employees who have entered employment via Apprenticeship or other supported employment opportunities. We have preserved their anonymity and do not identify their employers, beyond noting here that both are employed in Scotland for large companies (5,000+ employees). A summary of their experiences is attached as Appendix One.

Due to the restricted sample size here, we cannot make generalized findings, but these two narratives do help to show that there are individual challenges when seeking to join the workforce as a neurodivergent individual. These can arise whether at the school-leaving stage, or later in life.



OBSERVATIONS FROM PRACTICE

In our work supporting neurodivergent young people contemplating next steps after school, Mindroom has encountered several different aspects of the Apprenticeship schemes. In theory, Foundation Apprenticeships should be appropriate for many neurodivergent school students, for whom a purely academic pathway is not suitable. In practice, our team has encountered a few different issues for individual young people. These include:

- ▶ Many schools who do not offer any Foundation Apprenticeship options.¹¹
- ▶ A young person being pressured to embark on a Foundation Apprenticeship, which was felt to be in place of the school offering support to continue in-school courses.
- ▶ A young person who had poor attendance at school, which the school said would discourage them from putting the student's name forward for an Apprenticeship programme.
- ▶ A school citing a limited number of Foundation Apprenticeship places open to their students.

When places are limited and schools are potentially acting as gatekeepers, there is increased pressure placed on the young person before beginning an Apprenticeship that they will fully commit and full attendance will be expected, therefore giving an impression of very limited scope for flexibility or reasonable adjustments.

“ Our team has encountered a few different issues with Foundation Apprenticeships for individual young people ”

¹¹ Note: the geographic spread of Foundation Apprenticeships is very uneven e.g. Aberdeenshire offering 420 enrolments at SCQF Level 6, City of Edinburgh Council offering 41, and Inverclyde just 5. Skills Development Scotland Foundation Apprenticeship report 2022 <https://www.skillsdevelopmentscotland.co.uk/publications-statistics/statistics/?page=1> (accessed 19/7/23)



SUMMARY AND RECOMMENDATIONS FOR FURTHER RESEARCH

The data available from Skills Development Scotland reports does give some valuable insights into the growth in take-up of Apprenticeships overall, and the types of frameworks that are attracting most entrants. However, the limitations of the data do not allow for anything more than very general conclusions to be drawn, particularly in relation to disability or neurodiversity.

There is insufficient attention paid to disability more broadly, and to specific populations, such as those who are neurodivergent. It is therefore not possible to chart the journey of neurodivergent young people into and through any of the apprenticeship schemes.

Therefore, our first recommendation would be for improved data collection in relation to all the Apprenticeship programmes. Consistency of definitions of disability and refinement of questions around neurodiversity will enable future researchers to identify positive and negative journeys for neurodivergent young people.

“ Therefore, our first recommendation would be for improved data collection in relation to all the Apprenticeship programmes ”

The datasets are relatively small, which makes meaningful analysis difficult. Augmenting the numerical data with qualitative data would bring another dimension to our understanding of the differing experiences of undertaking an Apprenticeship in Scotland.

It could be worth introducing confidence and/or wellbeing scaling to the frameworks to receive some real-time data from the Apprentices. For example, on joining the scheme and after 6 and 12 months or on completion.¹²

From our practice observations and the experiential data obtained through interviews, we would recommend that the Foundation Apprenticeship programme is expanded to offer greater choice to school leavers. This should be accompanied by greater awareness among career services, education staff and schools. Building in greater flexibility and adaptation to individual frameworks, including throughout each type of Apprenticeship programme, would make them more accessible and would help to ensure that more neurodivergent individuals could receive enough support to successfully complete an Apprenticeship.

¹² SDS do collect real-time data but this is as yet unpublished.

ACKNOWLEDGEMENTS

Salvesen Mindroom Centre would like to thank:

- ▶ A number of individuals who spoke to us to describe their experience of entering employment.
- ▶ Skills Development Scotland.
- ▶ Gary Chen, a University of Edinburgh graduate worked with us on this report.
- ▶ Partners in our Neuroinclusion at Work programme, who supported us to include experiential information.



APPENDIX ONE:

LIVED EXPERIENCE OF PATHWAYS INTO EMPLOYMENT

Background note: (For anonymity, names have been changed). 2 employees contributed their experience to this report. Rowan had come into work from school via the Kickstart scheme – a UK government initiative, now closed. Alex had a history of several years of work post-school, including self-employment, and saw an advertisement for a modern apprenticeship. Neither interviewee heard much about apprenticeships at school.

Rowan's story

Rowan wanted to qualify as a vet, but they were told they wouldn't achieve their ambition. The apprenticeships that were mentioned were for becoming an electrician or a plumber. Rowan felt that advice on how to achieve their ambition was lacking and, for example, the idea of attending college to build up relevant qualifications was never explored. They would have appreciated advice at school on practical things like paying bills. Rowan did gain some experience through volunteering, through a family friend.

Rowan had a diagnosis of autism and was sometimes hesitant to share that when applying for jobs. At one interview, there were a lot of questions about what support Rowan would need for their disability, and in the end the job was not offered. Even though they knew that legally there shouldn't be any discrimination, Rowan was put off from disclosing their autism by this experience.

It was a job coach who suggested the Kickstart scheme as a way for Rowan to build up confidence and build their CV. At the end of the 6-month scheme, Rowan was offered full-time employment. Rowan felt that the step into employment was 'quite hard' and having the 6-months to adapt to the routine of work was a helpful support.

Rowan had disclosed their diagnosis of autism to the employer and the manager said they had experience of supporting autistic colleagues and colleagues with ADHD. In terms of being an autistic person in the workplace, Rowan recognized that they have strengths that neurotypical colleagues may lack, such as Rowan's ability to focus on their work tasks and complete them before taking a break. The main adjustment made at work to support Rowan's autism is that their manager and colleagues who are aware of their condition recognise when Rowan needs to take a break if overwhelmed by too much social interaction.



Alex's story

In school, there was no help to get into a job, and Alex went to work in a supermarket, followed by several years of self-employment before, as a mature adult, noticing an advert for a Data Analyst Apprenticeship and making the decision to apply. During the application process, Alex stated they had an assessment for ADHD pending. Although Alex had some hesitation about this, they had looked at the employer's website and saw statements about increasing diversity in the workforce, which gave Alex more confidence in being open about potentially having ADHD.



Alex found the first 8 months of the role to be a struggle, but the employer had a lot of supports available, including therapy and access to a psychiatrist. In addition, there is an open culture to talk about mental health, and an acceptance of coping strategies, such as wearing headphones. However, there is less awareness and understanding of less tangible adjustments that Alex might need. For example, instructions in writing, clear explanations, and sufficient time to process information.

Alex sees that having ADHD has some advantages – they are able to approach work from a different perspective, including taking a long-term view, and approaching work in a very logical manner. Alex appreciates colleagues who are 'blunt' and to the point because that way information is conveyed in straightforward terms. It is vital for colleagues to do what they say they are going to do – that would make a real difference.

Alex has been very open at work about having ADHD and says it's 'rare' to be able to be that open at work and be met with people who say 'that's fine.' But this is not replicated in all the work settings, so Alex has felt vulnerable sometimes.

The Apprenticeship has an element of self-study with a college, which doesn't suit Alex. The absence of pressure and deadlines in the college is both helpful and a hindrance. Self-managing time and having to devise their own routine is problematic: more structure would make the role easier. For that reason, Alex doubts a digital apprenticeship would be suitable for a school-leaver.

To improve Apprenticeships, Alex would find having a mentor would make a big difference: someone in the team/company to talk to, who 'gets it'. Also, it would help if all managers and colleagues had more understanding about neurodiversity, informed by people with lived experience, so that asking for written instructions, for example, could be understood as necessary and not Alex being 'awkward'. Alex would be willing to share their experience to help people following on so that the Apprenticeship journey isn't so hard in future for someone who is neurodivergent.



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