TASO Transforming Access and Student Outcomes in Higher Education

Summary report:

What works to reduce equality gaps for disabled students

February 2023

CONTENTS

Acknowledgements

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1. INTRODUCTION

This report summarises the evidence on the effectiveness of interventions to address inequalities in higher education (HE) among disabled students in the UK. It also indicates some priorities for future research and evaluation, to ensure that disabled students are more fully included in HE. This report is a summary of an evidence review TASO commissioned by the University of Lincoln.

Disabled students experience various inequalities in HE: from entry or access, during their student experience, and in terms of labour market outcomes. TASO commissioned this evidence review in line with our aim to improve the evidence on what works to address inequalities in HE. The report found limited causal evidence on what works to address disability inequality. A large number of studies reviewed offer promising and developing practice that could improve disability inclusion.

This summary report focuses more on the evidence from the wider research related to interventions. We have also outlined the considerations raised by expert reports and interviews, which highlight research and intervention areas that call for greater attention and development.

2. CONTEXT AND DEFINITIONS

Disability inclusion (DI) is the extent to which HE providers (HEPs) support disabled students' equal access and equal opportunities to do well and achieve similar outcomes compared to their non-disabled peers (Evans & Zhu, 2023).

The last decade has seen significant growth in the disabled student population in postsecondary education in the UK (DSUK, 2022). At the same time, there has been an increase in supportive legislation and associated funding for disabled students (Hewett et al., 2021), enhanced provision for students with disabilities within mainstream schooling (DfE SEND review, 2022), and technological innovation (JISC, 2021) to improve disabled students' access and participation in HE.

However, disabled students remain under-represented at point of entry and are often less satisfied with their HE experiences (OfS, 2020). In England, disabled students are more likely to drop out of university, have lower degree results and worse employment outcomes than their non-disabled peers (Hubble & Bolton, 2021; Barkas et al., 2020; Bettencourt et al., 2018; DSC, 2021a; Jacques & Abel, 2020; Lister et al., 2021; OfS, 2021; Shaw, 2021).

In 2020-21, 17.3% of the undergraduate population in the UK reported a disability, representing a 47% increase in numbers since 2014-15 (HESA 2019/2020 data source). In the UK context, the rapid rise in disabled student numbers is largely accounted for by the growth in numbers of students reporting a mental health condition, which has increased by more than 180% since 2014-15 (Hubble & Bolton, 2021). There are considerable variations in representation at the discipline level (Taylor & Johnson, 2020).

There is substantial variation in the nature of 'disability' and of the outcomes that different disabled students experience. While Wolbring and Lillywhite (2021) report that the less obvious the disability, the more positive attitudes disabled students received, research suggests those with hidden disabilities face more disadvantages given the lack of understanding and willingness to accommodate these students (McEwan & Downie, 2019; Morina, 2017). Students with mental health-related non-apparent disabilities have been reported as experiencing higher discomfort when disclosing or sharing data on their disability, and more negative peer interactions than students with apparent conditions or non-apparent learning difficulties (Smith et al., 2021). Students with neurodiverse conditions experience considerable apprehension around disclosure (Clouder et al., 2019; Cox et al., 2020).

3. METHODS

The evidence review (Evans & Zhu, 2023) comprises 408 articles that were assessed according to the nature of evidence collected and inferences that could be drawn using Office for Students' (OfS) standards of evidence.

Type 1 – Narrative: there is a clear narrative for why an activity may be effective, and this is often based on findings of other research or evaluation.

Type 2 – Empirical Enquiry: data suggests that an activity is associated with better outcomes for students.

Type 3 – Causality: methods are used which demonstrate that an activity has a 'causal impact' on outcomes for students.

Given the number of papers and the nature of the evidence, it was not always straightforward to definitively assign each paper to the above typology. However, approximately 70% were Type 1, with no more than 2% (under 10 papers) being Type 3.

The full report is further informed by Preferred Reporting Items for Systematic Reviews and Meta-analyses guidelines (PRISMA) methodology (Page et al., 2021) to help identify the most prominent areas for current and future research on disability inclusion:

- 408 papers were identified via indexing databases (ERIC and Scopus, including snowballing of relevant works not picked up in the initial review (n = 12)).
- 83 expert reports, comprising national agency, government, and specialist committee reports (n=58), plus cross-referencing to 25 related papers and summaries gathered using snowballing techniques.

Consultation with stakeholders involved institutional online surveys for academic and student leads of DI, and panel interviews to test and develop the key themes. The online surveys comprised two surveys of 20 questions (one for academic DI institutional leads and one for student leads). The questions making up the surveys were derived from analysis of the literature, and focused on issues relating to financial, specialist and academic support for disabled students within HE at all stages of the student life cycle. Colleagues were invited to provide case studies to exemplify practices and selected examples are included in the narrative of the evidence review. We received 16 institutional responses from a possible 271 Deputy and Pro-Vice Chancellors.

Expert stakeholder panels were convened with colleagues with specialist knowledge and experience of DI to gain better understanding of challenges in developing DI, and examples of best practice. Purposeful sampling was undertaken to identify key organisations, and individuals within the DI field. Eight focus panel meetings were convened engaging with specialists across a range of organisations involving 37 colleagues in meetings of 30-120 minutes.

Secondary data analysis was also carried out using the OfS' data dashboard and analysis of 68 Access and Participation Plans (APPs). This analysis explored institutional responses to enhancing disabled student access, continuation, success, and progression compared to non-disabled students. The stratified purposeful sample included 68 of the 171 available reports in 2020-21 ensuring representation across FE colleges, small and specialist providers, Russell Group universities, post-92 universities, and metropolitan universities. In total the sample represented 21% of the total number of UK institutions (including FE colleges) offering HE courses in England (n=326). Differences in institutional approaches to reporting on DI were noted along with key themes and their frequency within documentation. Data was initially analysed independently by four colleagues and assimilated into one final analysis following detailed discussion and cross-checking of data sets.

Ethical consent to undertake this research was approved by the ethics committee of the University of Lincoln, UK.

4. FINDINGS

The first two sub-sections below capture the thematic considerations outlined in the expert consultation as requiring further research, implementation and evaluation to deliver on disability inclusion. The five themes that follow summarise the report's themes and evidence base for interventions that have been evaluated.

4.1 Data collection considerations

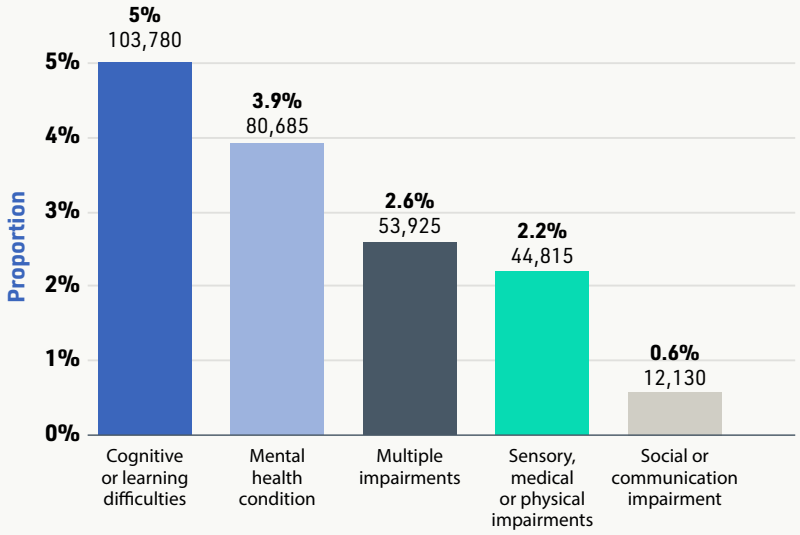
Effective and consistent data collection is required to effectively understand and address inequalities. In the case of disability, the review found particular considerations and challenges on data collection emerged.

- **Improving data collection:** Improvement is needed across UK HE to ensure more consistent and comparable data collection. In the analysis of APPs, there was an inconsistency in language, and in the ways in which data is reported. This lack of uniformity or consistency makes comparisons between HEPs difficult. For example, the range of benchmarks included: national averages, previous institutional performance over varying time frames, disabled to non-disabled students within individual institutions, chosen comparator institutions, and rates of increase and decrease over varied timescales. This indicates the need for more consistent benchmarks as part of a commitment to standardisation across the sector.

  Another key area for data collection on disability is accessibility. Data accessibility is a priority for designing and evaluating interventions to address disability inequalities, and to involve those affected by these inequalities.

- **Disaggregating disability data:** The evidence highlighted the need to disaggregate general data on disability. The range and nature of disability varies considerably, as outlined in Figure 1 below, re-produced from OfS analysis.

Figure 1: Proportion of students studying in England who declared a disability by impairment, 2018-19



Source: OfS equality and diversity data.

Note: 85.7 per cent of students do not declare a disability

From a data collection point of view, the challenge is not simply that there are a variety of different experiences of disability, but that these disabilities have quite varied and unequal outcomes. The complexity of this challenge extends beyond data collection or analysis to designing and evaluating interventions. An intervention that is designed to or successfully ensures inclusion for someone with attention deficit hyperactivity disorder (ADHD), for example, is arguably less likely to be successful for someone with a sensory or physical impairment.

As with other equality characteristics, there is also a need to improve 'intersectional' data on disability, particularly on socio-economic status and ethnicity.

- **Addressing data sharing or disclosure concerns**: Data collection on disability is voluntary, and requires individuals to be able and willing to share or disclose this information. The evidence indicates various reasons why disclosure is not always straightforward. Some reports found that 'disclosure' itself can be viewed negatively, perhaps unsurprisingly given the history of stigmatisation around terms relating to disability.

  Pearson et al. (2019, 6) argue that a 'one-size-fits-all approach is not appropriate to choosing language used to communicate with students' given that what is right is dependent on the context (e.g., they found some students preferred a 'medical language model' to be used for disability disclosure questions). Updating the disability question wording on UCAS application forms in the UK system resulted in student disability sharing or disclosure rates increasing by 10% from the previous year (Shaw, 2021). The layered and often messy way in which many disabled students try to navigate disclosure by disclosing in some spaces and not in others testifies to the importance of an integrated approach to ensure students' needs are acknowledged (Aubrecht & La Monica, 2017).

  Disabled students can sometimes be asked or required to disclose their disability multiple times, to different points of contact or administrative departments, and with insufficient clarity or signposting about the purposes of such disclosure. The finding can enhance feelings of exclusion or stigma. The implication is that data should be gathered in a more streamlined way where possible, with clear explanation of how and why data will be used, including signposting to any support that could be available for disabled students.

  One possible approach is a 'passport' that ensures that disabled students (and disabled people in general) do not need to further share or disclose their disability while also ensuring they have access to their rights and any appropriate adjustments. The Disabled Students Commission has suggested further work on this idea, a version of which has been piloted by the Department for Work and Pensions.

4.2 Institutional approaches to disability inclusion

A variety of considerations on the importance of institutional levers and approaches emerge from both the literature and among expert reports and interviews. These considerations fall into a few thematic areas. The evidence on what works for each particular consideration is less extensive, indicating the need for better evaluation.

The findings resonate with previous reports on disability and on equality, diversity and inclusion (EDI) more widely. In general, there is a growing consensus that disability inclusion requires an institution-wide approach, underpinned by a clear strategy, leadership, communication, and with clear and measurable objectives that can be evaluated.

- **Leadership:** The literature indicates the crucial role of institutional buy-in and leadership for delivering on disability inclusion. There remains a lack of disabled staff in leadership positions within HE, which is impacting progress in developing fully inclusive communities (Harpur & Szucs, 2022; Martin, 2017). In the UK context for 2019-20, only 3.6% of academic senior managers disclosed as disabled (Advance HE, 2020).

  The message of valuing diversity (Bennett et al., 2016; Hill et al., 2020) is diluted by the lack of visibility of disabled leaders within HE. In expert reports leadership is analysed at a variety of levels to include the roles of government and regulators, to businesses and disability organisations working in concert with HEPs. A culture of responsibility for DI across the entire organisation is emphasised (Lipson et al., 2019), along with the requirement for senior leaders to prioritise the needs of disabled students (DSC, 2022a).

- **Training and support:** Training and support emerged as a strong and diverse theme across a number of reports and among survey respondents. While there is an emphasis in the literature on the need for disability awareness training, there is a lack of focus on the evaluation of the effectiveness of EDI training on staff and student outcomes (DSUK, 2022; Hector, 2020; Pitman, 2022; UUK, 2020). There were no examples of causal evidence on training and support, indicating the need to improve evaluation of 'what works' in an area where there is widespread and varied practice across HE.

  Given the range of activities captured within 'training and support' there is a need to evaluate these separately. In the wider literature, the evidence on bias training is mixed. A review from the Equality and Human Rights Commission suggested that while unconscious bias training (UBT) can be effective in raising awareness of bias, it does not eliminate it, and there is limited evidence on it having any behavioural effects (Atewologun et al., 2018).

  Conversely, a study that tested the decision-making process for disability accommodation in HE in the United States (US) found a nuanced picture, with evidence of bias among some respondents, but 'concentrated only among staff who report not having taken a racial bias training course' (Druckman et al., 2021, p.1). Given this was a targeted training course on racial bias specifically, there may be scope to evaluate targeted disability inclusion training with a focus on bias, as opposed to general UBT. The research literature and expert reports highlight the importance of training to address bias around DI and in relation to specific disabilities (LERU, 2019), which was also a key theme among those surveyed and interviewed.

- **Communication:** Expert reports on disability inclusion have emphasised the importance of institutional communication, and have linked this to implementation on the ground.

- One aspect of communication is around the term or conceptualisation of disability, and of disability inclusion. There is still some sector and societal understanding of the 'medical' model of disability – whereby individual disabled people or their impairment is seen as a 'problem'. Instead, leaders and HEPs should better communicate the 'social' model of disability, whereby societal factors cause disabled people to have unequal experiences and outcomes.[1]

- **Student and staff voice:** The evidence on 'self-advocacy' is summarised below. The value of student and staff voice is also a key aspect of embedding disability inclusion within institutions, or within an institution-wide approach. Participatory designs should better engage disabled and non-disabled students and colleagues together in maximising the potential of diversity within the university and beyond it (Bennett et al., 2016). Disabled students and staff need to be centrally engaged in informing learning and teaching, research, and enterprise activities (DSC, 2022).

- **Whole institutional approach:** Together the above considerations feed into a wider view about the need for an institutional or embedded approach to disability inclusion. Emphasis needs to be placed on adopting coherent and systematic institutional approaches to enhance access and success for all underrepresented groups (focused rather than diffused approaches): (a) embedded within curriculum and lived experiences of all students, (b) less is more co-ordinated approaches across faculty; (c) focused monitoring of application across all contexts, (d) effective methods to evaluate success, and (e) collaboration across the sector and with wider stakeholders.

[1] The Parliamentary and Heath Service Ombudsman 'Introduction to the social and medical models of disability'

4.3 Reasonable Adjustments (or 'Accommodations')

- HEPs have legal responsibilities to support disabled students under the Equality Act 2010.[2] They also receive funding from the government in the form of Disabled Student Premium to provide reasonable adjustments and support services for disabled students.
- HEPs respond with a range of reasonable adjustments (or, particularly in the US context, 'accommodations') for disabled students, including extra time on tests, assistive technologies, tutoring, mentoring, and support programmes in addition to financial support. [3]
- Reasonable adjustments need appropriate framing. Further research is needed on if and how reasonable adjustments best support disability inclusion, taking into account the below OfS briefing note on how HEPs should implement them.
- Despite the legal requirements and funding, there is little research on what support is effective. Reasonable adjustments or accommodations were a dominant theme in the evidence review but the overall quality of research is not strong – many of the studies are small-scale, located within specific contexts and few attempt to identify whether interventions have the desired impact on student success (Madaus, et al. 2018; Madaus et al. 2021) and evidence in a UK context is particularly lacking.
- A number of studies suggest a positive correlation between adjustments and HE success for disabled students (see for example Kim & Lee, 2016; Safer et al., 2020). However, they do not provide evidence of impact.
- One study which goes further to establish effectiveness used administrative data to examine a sample of 220 US college students with learning difficulties (Newman et al., 2019). By matching students who received support at college with a group of similar students who did not receive support, they found that students receiving universal support (e.g. tutors or writing centres) were more likely to be successful. However, the method they used cannot entirely account for the fact that students who access these forms of support may be systematically different from those who don't (for example, they may have better support networks).
- One US study which provides a useful example of generating stronger evidence on specific accommodations is provided by Weis and Beauchemin (2020). They set out to test whether the practice of allowing students with ADHD and/or learning disabilities to complete examinations in a separate, distraction-reduced setting was an effective accommodation. With a sample of over 1,600 students in a US college they randomly varied whether students sat a test in a separate room or in a group setting. They found students performed equally well in the group setting, but students with disabilities earned significantly lower scores than their classmates without disabilities when tested in a separate room. This accommodation, designed with the aim of closing equality gaps, might therefore instead lower test scores for disabled students.

> 'The OfS encourages providers to follow the social model of disability. The social model developed out of an understanding that disability is not something medical to be treated, but rather a failing on the part of society. Understood this way, a response to disability is not about 'fixing' the individual, but rather about restructuring the environments and attitudes around them. By building inclusive practices into an institution's structure and operations, fewer reasonable adjustments will be needed over time. Where such adjustments are needed, the institution can be much more responsive to individual needs.' (OfS briefing note)

[2] 'Reasonable adjustment' is the legal term in the UK context, as in Section 20 of the Equality Act 2010

[3] 'Accommodation' is used in the US (as in the Americans with Disabilities Act) and in the UN Convention on the Rights of Persons with Disabilities. For the UK HE context, the OfS have produced guidance on Disability Students' Allowance (DSA). EHRC has also published guidance on reasonable adjustments.

4.4 Inclusive learning

- Inclusive learning approaches promote equal access and equal opportunities for all students; for example, via changes to learning materials or the actual curriculum.
- However, 'inclusive' is an umbrella term with varied interpretations, making it difficult to generalise. In the context of HE, attention has focused on the adoption and promise of Universal Design for Learning (UDL) approaches (CAST, 2011, 2018).
- Instead of focusing on reasonable adjustments for students with disabilities, UDL provides a framework to change the actual learning environment. Elements of UDL include stripping back the curriculum and signposting core elements, ensuring choice in how students can navigate learning environments and the nature of resources they use, and engaging students in negotiating and justifying how their choice of assessment meets the learning outcomes requirements.
- Although much of the literature speaks about the need for inclusive approaches such as UDL, it is not widely studied or well-evidenced. Reviews have concluded that existing research lacks measurable indicators of success (Cumming & Rose, 2021), and provides insufficient evidence to support widespread use of the initiative (Schreffler et al., 2019). One review also found that the relatively poor quality of actual interventions made it difficult to make inferences about the efficacy of the approach (Nieminen & Pesonen, 2020).
- Overall, there is not a good understanding of what inclusive practice is and how to facilitate it effectively within HE (Shaw, 2021).

4.5 Assistive technologies

- Assistive technologies (ATs) are 'any technologies that enhance access to learning and assist someone to do something they would otherwise be unable to do or have difficulty with' (JISC, 2021). Examples include note taking alternatives and text to speech software.
- One recent review concluded that ATs have educational and psychological benefits for students with disabilities (McNicholl et al. 2020) but this conclusion is not convincingly supported by the literature which mainly consists of small-scale studies and is fragmented into smaller pockets of overlapping research on different approaches (for example, speech recognition software, the use of iPads, etc.).
- Arguably we need more research on how specific ATs perform but we also need more research which explores whether the ATs as an approach are actually effective as this is a clear limitation of the existing evidence base (Dobson et al. 2020; Moon & Park, 2021; Papay & Grigal, 2019; Zeng et al. 2018).

4.6 Transitions support

Entry to HE

- Support to help disabled students transition into HE is a dominant theme in the literature, in part because federal law in the US requires that disabled students receive specialised support and services. However, despite the legal mandate, there is limited research on the actual impact of transitions planning (Ruble et al., 2018).
- There is correlational evidence that entry to HE is a critical point for disabled students; for example, using a large dataset from a US college, Safer et al. (2020) found disabled students who used support services targeted to them were more likely to persevere and to perform better, especially if they used services the first term.
- A handful of studies from the US find a correlation between transitions support and outcomes such as self-determination (Schillaci et al., 2021), accessing accommodations (Newman & Madaus, 2015) and course completion (Yu et al., 2018).
- One US study which goes further in demonstrating impact is Ruble et al. (2018). They randomly varied whether students with autism took part in an intervention which involved parent-teacher consultation, goal-setting and coaching for teachers and students. They find some promising evidence that this multi-stakeholder consultative approach improved the extent to which students achieve their transition goals, but with a small sample of 20 students, further research is needed to underpin this approach.
- One study in the review specifically focused on examining a mentoring programme for students with intellectual and developmental disabilities; Agarwal et al. (2021) used pre- and post-questionnaires to capture data before and after mentoring workshops and found some limited improvements in disability awareness for mentors, but no other changes in knowledge or attitudes.

Transitions into employment

- Support for the transition into employment includes specialist disability careers services, external agencies and employers; skills development through coaching and mentoring; internships; work-integrated learning; and opportunities to engage in research. There is a dearth of research looking at the impact of these different possible approaches.

4.7 Self-advocacy

- Self-advocacy is the ability to speak up for yourself. It relates to an individual's ability to manage their own environment effectively.
- Correlational analysis of data at a US college presented in Fleming et al. (2017) found self-advocacy to be the strongest predictor of academic performance when considering a range of variables impacting disabled student performance. This may be because self-advocacy is a necessary prerequisite for disabled students accessing many forms of support. However, it may also be because when we measure self-advocacy it is acting for a proxy for some other unobserved difference between students (for example, family support) which also affects their ability to access accommodations. This is why it is important to test whether approaches to improve self-advocacy also improve other outcomes.
- There are a small number of studies which explicitly examine the link between mentoring/coaching and self-advocacy among disabled students. They find some evidence for a positive relationship between mentoring and self-advocacy, and mixed findings in relation to academic performance (Markle et al. 2017; Hillier et al. 2019).
- In one example of stronger impact evidence, Marino et al. (2020) explored the impact of coaching for science, technology, engineering and maths (STEM) students with executive function deficits in a US college. They randomly allocated a sample of 120 students to receive the coaching or to a control group who did not. Participants who received the intervention reported higher scores on cumulative GPA than the control group. In addition, students in the treatment group were more likely to persist in their STEM majors.
- Another stronger impact evaluation focused on cognitive-behavioural mentoring programme involving weekly group and individual sessions delivered over two consecutive terms in a US context. A sample of 250 students with ADHD were randomly allocated to either receive the mentoring straight away or at a later date. The group who received the mentoring showed significant improvement in executive functioning (greater increase in their knowledge of ADHD, greater increase in use of behaviour strategies and significantly increased use of disability accommodations (Anastopoulos et al., 2021)). Reporting on the same intervention, Eddy et al. (2021) found no impact on attainment.

5 RECOMMENDATIONS

Recommendation 1: Improving data collection

- Improving data collection will require that students feel confident and trust in sharing or disclosing a disability. Disabled people – both students and those working in HE – need to be consulted and involved in how data should be categorised and collected to better address the issues of data sharing or disclosure. Building trust and trusted relationship is a key factor for improving data collection (see also UCAS, 2022)
- Data on disability needs further disaggregation, both in terms of type or kind(s) of disability, and in terms of how disability interacts with other equality issues, particularly social class and ethnicity. Where possible the OfS and Jisc (as the designated data body) as well as individual HEPs should publish disability data in a way which allows multiple characteristics to be analysed.
- A key reason for ensuring better data on disability is to ensure HEPs fulfil their legal obligations and commitments, as established in the 2010 Equality Act. Better data can help HEPs make anticipatory adjustments and develop more globally inclusive practices so that disabled students are fully included and can succeed in HE.
- We endorse the seven 'Requests to share information' recommendations from the Disabled Student Commitment (DSC 2022b; as published in December 2022). Four of these focus on how HEPs can better deliver on data collection and sharing, with three additional recommendations for other statutory bodies, in HE and beyond. Within HE, there is a role for the DSC, the OfS (as the regulator), Jisc (as the designated data body) and Advance HE to work together with students to deliver on improved data sharing.
- Given the positive findings of the DWP's 'Adjustments Passport' pilot (Stefanov et al., 2022), there is scope to roll this out further, and to ensure passports work for students in HE. The initial evaluation indicated that the passports could address stigma, increase confidence and reduce 'time-consuming and often cumbersome' processes for data collection, as well as improving the take up and delivery of reasonable adjustment (see next recommendation).

Recommendation 2: Reasonable Adjustments

- There is a need for better evidence on reasonable adjustments: on how they are delivered and their impact on disability inclusion. Without comprehensive research on reasonable adjustments, we cannot assess whether or to what extent they are achieving their intended impact for students.
- In light of the above, the Disabled Students Commission or a successor body could seek to engage students and gather evidence from the sector on which reasonable adjustments are most common in the sector, how many students are benefitting from them, how they are most effectively delivered, and how far students feel that reasonable adjustments ensure their equal participation and inclusion in HE. These findings would allow for the development of causal evidence on the impact of particular adjustments – evidence that in the UK context is currently lacking.
- The Disabled Student Commitment has outlined a number of ways to improve how reasonable adjustments are delivered for disabled students, both on applying to HE and following their entry into HE. These focus on the importance of reasonable adjustments in enabling inclusivity and belonging, and engaging students in their delivery.
- As with all public bodies, HEPs need to make 'anticipatory reasonable adjustments'. This duty applies to pre-entry as well as post-entry activity, and to curriculum, on-course and wider student experiences. There is limited evidence of the extent and effectiveness of anticipatory adjustments generally (Lawson & Orchard, 2021), and a need for further research on this topic in HE specifically.
- Reasonable adjustments or accommodations need to be carefully framed or interpreted. Disabled people have rights and entitlements under the Equality Act, and these should be recognised as responding to the social inequalities and injustices they experience. While HEPs should recognise and strive towards the aim of equal disability inclusion, where reasonable adjustments may become less necessary, they also need to ensure they comply with and support students to ensure their inclusion in the immediate to medium-term.

Recommendation 3: Transitions

- The review found evidence that transitions support can be effective for enabling disability inclusion. This evidence, particularly Type 3 research, was often based US experiences, where there is a legal or statutory requirement for HEPs to focus on delivering support during transition into HE.
- In the UK context, there is some evidence on the importance of transitions, and the Disabled Student Commitment has suggested ways of improving information, access and guidance in accessing HE, focusing on HEPs but also UCAS, the OfS and funders of HE access and participation programmes. As transitions support is improved and expanded, it will be more feasible and important to evaluate what is working best to deliver on disabled student inclusion.
- A key benefit from and reason for attending HE is the positive impact on the labour market. The evidence on transitions to employment from HE for disabled students is fairly limited; TASO's previous report on employment (Ramaiah & Robinson, 2022) also found limited Type 3 evidence. This indicates a need for further evidence on disabled students' transition to employment and employability.

Recommendation 4: Institutional approaches to disability inclusion

- Across HE there is increasing commitment to 'whole institution' approaches to tackling disability and other inequalities. Such commitments need to be properly scrutinised and evaluated, to determine whether they make an impact on inequalities in HE.
- Among the institutional considerations for HEPs is training on disability inclusion and equality. More work is needed on the efficacy of different training approaches in impacting outcomes.
- There is also a need for greater representation and recognition of disabled people in senior leadership in HE.

Recommendation 5: Disability inclusion in APPs

- Given the finding that APPs are somewhat inconsistent on disability inclusion, APPs should be monitored in terms of how far they commit to addressing disability inequalities, and whether and how they will evaluate such commitments. The Disability Student Commitment suggestion that HEPs should include a specific disability focus in their outreach strategy and plans, and that the OfS could adopt this approach in their monitoring of APPs.
- Reasonable adjustments was a dominant theme in the APPs of the sampled HEPs. The sample of APPs emphasise the importance of reducing the need for individual adjustments, and enabling students to achieve their full potential through inclusive curricula. There is scope for more and better evaluation of the interventions outlined in APPs, including the effectiveness of whole provider approaches to inclusive provision/delivery or individual needs-led approaches respectively.
- Transitions support has some of the best evidence in the (international) literature. However, less than a third of the APP sample offered early transition support, such as earlier registration or orientation programmes. Just over half the sample invested in access initiatives to support student entry (for example information on disclosure process, or financial assistance). There is potential for evaluating the effectiveness of these approaches in future APPs.
- Although there is a lack of research looking at the impact of different possible approaches to improving the employment outcomes of disabled students, just under half the HEPs in the APP sample outlined approaches to supporting employability of disabled students and there is much potential in evaluating the effectiveness of such approaches on students with differing profiles and patterns of disability and across professions.

Recommendation 6: Improving evaluation on disability inclusion

- The evidence suggests that there is a need for more and better evaluation of interventions to address disability inequalities in HE. Across the themes of reasonable adjustment, inclusive learning, assistive technologies and transitions support, there emerged a clear need for more and better research which seeks to uncover which approaches are most effective.
- Effective evaluation of intervention to address disability inclusion needs to address the range of different experiences of disability. Even where an impact evaluation finds causal evidence, it is important to consider whether and how that intervention applies to the range of experiences of disability.

5.1 Next steps

Based on the findings of this Review, that there are gaps in the evidence that demonstrate what works to improve outcomes for disabled students, TASO has developed a project to build Type 2 evidence (at a minimum), and scope out the feasibility of Type 3 evaluation. This is being done by matching an independent evaluator with a HEP to provide evaluation support which includes:

- **Evaluation plan and theory of change development.** Evaluators will work with HEPs to develop an evaluation plan and theory of change for the programme/activity being evaluated.
- **Data collection and analysis.** In line with the pilot methodology, HEPs will lead on collecting data to help answer the research questions. The evaluator will play an advisory role throughout this process.
- **Reflection and reporting.** HEPs will produce a summary report, discussing the findings of the evaluation, the experience of using the chosen evaluation methodology, and how the findings will inform intervention development and further evaluation.

This provides an opportunity for participating HEPs to build internal evaluation expertise and learn about the efficacy of current practices to support disabled students. A report on project findings will be published in spring 2023.

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