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UK higher education lecturers' perspectives of dyslexia, dyslexic students and related disability provision

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Abstract

Dyslexia is currently a controversial concept. In UK universities the number of students possessing a dyslexia diagnosis continues to increase. Legislation requires that teaching staff proactively adapt their pedagogic practices to effectively include students so diagnosed. These actions depend on lecturers having up-to-date, accurate knowledge of what the dyslexia label currently means.

This study explored the nature and extent of UK lecturers' awareness of, and attitudes towards, dyslexia and dyslexic students. One hundred and sixty-four lecturers working within a range of disciplines in 12 UK universities were surveyed via an online questionnaire. The findings revealed a very high degree of positivity towards both dyslexic students and academic accommodations like reasonable adjustments. The positivity, though, was typically underpinned by inadequate awareness of current dyslexia research knowledge. Notable consequences included confusion and feelings of inadequacy around how best to meet the needs of dyslexic students, a resultant sole reliance on statutory generic reasonable adjustments, and a worrying disinclination to fully engage with related disability and equity issues. The study's quantitative estimate of the extent of these findings amongst a large and diverse participant group, together with its analysis of cross and inter-institutional differences, add a new dimension to existing

knowledge in the field. Inadequate and inaccurate awareness of relevant current dyslexia research knowledge has been shown to have serious implications for the overall quality and equality of teaching and learning in higher education.

Key words: dyslexia, higher education, lecturers' perceptions, reasonable adjustments, inclusive practices

Introduction

The number of UK higher education students with a formal diagnosis of dyslexia, or self-identifying as having the condition, has been steadily rising. In 2000 such students accounted for 1.2% of the student body; in 2016 they represented 5% of all students (HESA Free Online DATA Table). The Higher Education Statistical Agency (HESA), records dyslexia or specific learning difficulty (SpLD) as a category of disability. Current legislation, the Equality Act 2010, demands of educational institutions that they instigate policies and pedagogical practices to prevent discrimination of, and provide equality of access to, dyslexic students who fall into the "disabled" category.

The research corpus with regards to dyslexia is "intimidatingly complex and diverse - and even more confusing" (Nicolson & Fawcett, 2008). In the field of adult dyslexia, the construct is still poorly understood (Snowling, 2008). There exists a plethora of definitions (Rice & Brooks, 2004; Elliott & Grigorenko, 2014), leading to a lack of consensus on what dyslexia is and how it is assessed (Ryder, 2016). In fact, dyslexia's invalidity as a diagnostic category with a scientific basis is now widely acknowledged amongst most eminent researchers (Bishop, 2012). Instead, there is a growing movement towards identifying individual learning difficulties based not on black and white categorical conditions but on dimensional classification allied to personalised provision (Tanaka & Hoeft 2017; World Health Organisation [WHO], 2001), with

historical labels like dyslexia sometimes retained for laudable pragmatic, rather than scientific, reasons (Bishop, 2012; Wolf, 2014).

Whilst academic researchers might be able to accept a nuanced, complex understanding of the way in which the term "dyslexia" is used, many lecturers, along with the general public, are less privileged. The latter's views tend to be polarised between a medical model perception of the construct as a distinct syndrome with a biological basis, and a dismissal of it as a social construct, a middle class "fig leaf" (Daily Mail) used to hide stupidity (Bishop, 2012). It is not unreasonable to expect that many higher education lecturers might hold versions of similarly polarised views. In a political and social climate in which lecturers are required to engage with making responsible reasonable adjustments for dyslexic students (Equality Act 2010), and to move towards fully inclusive systems of teaching and learning (Higher Education Funding Council England [HEFCE], 2015), erroneous or even piecemeal understanding of the diverse behavioural characteristics and aetiological assumptions currently related to the dyslexia label (Elliott & Grigorenko 2014) could have serious implications for policy and practice.

The current literature contains little wide-scale systematic research on lecturers' awareness of dyslexia and of their attitudes towards and opinions about dyslexic students and related issues like such students' entitlement to statutory disability accommodations. The few existing studies are relatively small and confined to participants from either a single or small number of institutions (Farmer, Riddick, & Sterling, 2002; Ridddell & Weedon, 2006), a single faculty or department in one university (Cameron & Nunsooking, 2012; Mortimore, 2013) or else one subject area in a relatively small number of universities (Evans, 2014; Riddick & English, 2006).

Despite different methodologies and participant characteristics, the above cited studies expose common themes. The most conclusive of these is the need for more informed knowledge of the dyslexia construct. Few lecturers appeared to have received formal dyslexia awareness training from their institutions. In the Farmer, Riddick, & Sterling (2002) study the proportion is as little as 10.5%; Mortimore (2013) gives a figure of 20%. Those lecturers who were aware of and knowledgeable about dyslexia and its effects on students' learning had gained insight not from formal instruction but from personal experience of knowing family members, friends or students with a formal diagnosis (Cameron & Nunsooking, 2012). Such awareness was generally equated with more positive attitudes towards dyslexic students, as well as a greater willingness to accommodate them with inclusive teaching and assessment procedures (Evans, 2014; Cameron & Nunsooking, 2012).

Dyslexia awareness gained from a mixture of formal training and personal experience was not uniform amongst institutions in the sector. Riddell & Weedon (2006) found marked differences between the awareness and attitudes of teaching staff in the four pre-'92 "old" and four post-'92 "new" universities (ex-technical colleges) their study. The difference in academic cultures between the two categories of institution, as well as the numerical preponderance of dyslexic students in the post-'92 institutions, were given as an explanation for this finding. Noticeable differences in awareness and attitudes were also found across departments within the same university (Farmer, Riddick, & Sterling, 2002) and among individuals within the same faculties and subject departments (Cameron & Nunsooking, 2012; Mortimore, 2013; Evans, 2014; Riddick &English, 2006).

Most lecturers who professed knowledge of dyslexia conceived of it as a medical deficit model of disability, despite their institutions' official commitments to the social model (Mortimore,

2013). Inherent in their understanding was an assumed binary divide between dyslexia and non-dyslexia (Riddell & Weedon, 2006). This, when viewed sympathetically, expressed itself as altruistic concern for dyslexic students' academic performance (Mortimore, 2013), willingness to condone and instigate reasonable adjustments, and compassionate worries about the ability of students receiving disability provision to cope post-university in the world of work. Lecturers working within vocational disciplines like nursing (Evans, 2014) and teacher education (Riddick & English, 2006) struggled to reconcile what they perceived of as the competing demands of inclusive practices and accepted professional standards with regards to literacy and efficiency. Many also expressed frustration and regret about their inability to meet the recognised needs of dyslexic students because of increasing competing demands on their time (Farmer, Riddick & Sterling, 2002).

However, a medical model understanding of dyslexia did not always lead to positive attitudes towards the presence of dyslexic students in higher education. Many lecturers regarded the requirement to make reasonable adjustments as a regrettable example of academic "dumbing down", and questioned the right of dyslexic students to be at a university in the first place if they lacked the expected standard of skills (Riddell & Weedon, 2006). Dyslexia marking policies (assessment allowances made for poor writing skills), in particular, attracted much negative criticism. Amongst nurse and teacher educators there were several who felt that some dyslexic students' difficulties should disqualify them from these professions (Evans, 2014; Riddick & English, 2006). The additional workload associated with dyslexic students was also bitterly resented (Mortimore, 2013) as was what some lecturers interpreted as legislative interference with academic freedom.

Lecturers who did not recognise dyslexia as a medical disability expressed sceptical opinions about its validity, as well as equity concerns about what they often perceived as more favourable treatment for dyslexic students. The influence of post-modern and post-structuralist writers was leading some lecturers to question the assumed binary divide between dyslexia and non-dyslexia (Riddell & Weedon, 2006. The observed heterogeneity amongst increasingly large numbers of diagnosed dyslexic students led them to conclude, along with Rice and Brooks (2004), that the standard diagnostic criteria were casting too wide a net. There was disquiet concerning reasonable adjustments for dyslexic students and not for others, such as non-traditional and overseas students (Madriaga et al., 2010), who appeared to have the same difficulties. Revealed, also, was a tension between the desire to express political correctness regarding disability and suspicion that some dyslexic students were simply "playing the system" or else were lazy or just not very intelligent (Riddell & Weedon, 2006).

Variability in the extent and nature of lecturers' dyslexia awareness, and in their attitudes towards dyslexic students, has been triangulated in studies capturing examples of dyslexic students' perceptions on the subject (Mortimore & Crozier, 2006; Fuller et al., 2004; Pino & Mortari, 2014; Cooper, 2009; Madriaga, 2007; Madriaga et al., 2010; Shevlin, Kenny & McNeela, 2010; Griffin & Pollak, 2009). These have focussed mainly on the negative aspects of lecturers' lack of awareness and disabilist attitudes, observing that more positive understandings were haphazardly dependent on individual lecturers' good will and personal interest (Tinklin & Hall, 1999; Cameron & Nunkoosing, 2012).

Informative as they are, the above studies make little attempt to gauge the extent of their findings. This research aims to redress the knowledge gap. It transcends other UK studies in terms of participant numbers, range of institutions surveyed and breadth of respondents'

discipline affiliations. Quantitative as well as qualitative data were collected to explore answers to the following questions:

- (1) What are lecturers' awareness of, and attitudes towards, dyslexia and dyslexic students?
- (2) What are lecturers' opinions concerning the disability status of dyslexic students
- (3) How fair do lecturers consider reasonable adjustments to be?
- (4) What are lecturers' attitudes to bespoke disability provision for dyslexic students being replaced by institution-wide inclusive practices?

Method

Participants

There were 164 lecturer participants, 87 from six pre'92 institutions and 77 from six post'92 institutions. The division of lecturer data sources into "old" and "new" universities was a practice adopted by other researchers in the field (Riddell, Tinklin & Wilson, 2005; Mortimore & Crozier, 2006), and was intended to allow exploration of certain variables and group differences. The entire cohort comprised a wide range of subject areas that were classified, at the analysis stage, into three broad categories: Humanities (50%), STEM (Science, Technology, Engineering, Mathematics) (31%), and Artistic/Vocational (19%). All participants were self-selecting in that they voluntarily responded to an invitation to complete and submit an online questionnaire. The researcher chose 6 pre'92 HE institutions and 6 post'92 institutions and selected a broadly representative range of staff email addresses publically available on each university's website. The targeted lecturers were sent an invitation to participate which included a brief explanation of the research together with a link to the questionnaire. Approximately 20% responded.

Materials and Procedures

Data Collection

An online questionnaire was chosen because of its ability to collect data from a large comprehensive sample of participants. It originally formed part of a longer research instrument designed to capture data from dyslexia assessors and students, as well as lecturers (Ryder, 2016). The four targeted areas of lecturers' perceptions around which this paper is focused are set out in the above research aims.

Each of the four questionnaire sections had between 5 and 10 Likert scale closed items, as well as an open text box for optional additional comments. This latter feature ensured that participants' responses were not constrained by the questionnaire's format. The items in each section were constructed after a thorough review of the relevant research literature. The questionnaire was distributed in LimeSurvey format and the captured data then uploaded into SPSS ready for analysis. Qualitative data from the open text boxes were stored in NVivo for analysis and retrieval.

Data Analysis

Frequency scores were calculated for each of the questionnaire's closed survey items. To simplify further analysis, items that featured a 5-point Likert scale were collapsed into a 3-point scale and then converted into stacked bar charts (Figs. 1- 4). The results section notes any instances when this threatened to distort interpretation of the data. The participants were a self-selected group, thus necessitating the use of non-parametric statistical techniques. The Chi-square test of independence was used to explore differences in selected survey item responses between pre-identified subgroups in the sample – lecturers from the pre'92 and post'92 universities, as well as between lecturers working in the three disciplinary groups. Crosstabulation analyses were carried out on data from selected pairs of seemingly contradictory survey items, showing the percentage of same individual participants appearing

to agree and disagree with both items. Effect sizes are reported (the Phi coefficient or Cramer's V - dependent on number of subgroups compared) to enable further interpretation about the importance of any group differences. Qualitative textual data were analysed thematically in line with the way in which they were collected by the questionnaire to answer the research questions. Any unsolicited data was added to the analysis. In this paper, textual data are used selectively to illustrate some of the findings of the quantitatively analysed data, and to throw additional light on more considered interpretation of them.

Results

Dyslexia awareness

Insert Fig. 1 here

Figure 1 displays the quantified strength and direction of participants' agreement with statements pertaining to their awareness of, and attitudes towards, dyslexia and dyslexic students.

Institution-provided awareness training was relatively low. Only 40% of participants agreed that they had been offered it, triggering several admissions of ignorance as well as apologetic regrets:

I have never knowingly had a dyslexic student in my class.

(Pre'92 Education)

I don't feel like I know very much about dyslexia, which makes some of these questions [on the survey] hard to answer.

(Pre'92 English)

Apart from a very general awareness, I have very little understanding of the impact of dyslexia or how I could support students. I am very open to improving this.

(Post '92 Business and Languages)

Despite the relatively low percentage of lecturers having been offered dyslexia awareness training, 70% agreed that they were aware of dyslexia's cognitive, emotional and social effects on their students. Individual comments revealed that much of this knowledge was gained not through formal awareness training but through individual lecturers being dyslexic themselves, or else having a close family member or acquaintance who had been assessed as such:

I think that because I am dyslexic I am able to see traits in others and openly share my diagnosis to demonstrate to students that it does not mean that they are not clever not that they won't achieve.

(Post'92 Nursing)

My confidence comes from having a close family member who is dyslexic – I watched her struggle through school with little support and saw the consequences of that, which has stayed with me.

(Pre'92 Geography)

Nevertheless, possibly due to pressure of workloads, a very high 85% of lecturers expected to be informed of students' dyslexia by the students themselves, or the Disability Service acting on the students' behalf.

The survey did not attempt to explicitly gauge the exact nature of lecturers' dyslexia knowledge, yet the results suggest that amongst the participants there was much confusion as to what the construct actually was, and how it affected their diagnosed students. Despite 70% being aware of dyslexia's effects, only 50% felt confident recognising their students' dyslexic difficulties:

We are not trained educationalists and are not in a position to judge whether someone has undiagnosed dyslexia. Even as their academic tutors it is difficult to judge sloppiness versus genuinely untidy handwriting or spelling.

(Pre'92 Physics)

Nearly 40% admitted to being concerned about dyslexia's seeming heterogeneity, and 35% had doubted a student's dyslexia diagnosis:

The basis on which a diagnosis of dyslexia is made is extremely nebulous and the term seems to be used as a "catch all".

(Post '92 Geography)

Forty-six percent agreed that they had trouble distinguishing between dyslexic students and those whose literacy and/or study skills were ineffective due to past missed or poor educational opportunities; another 36% were confused between dyslexia and low ability:

The overall standard of writing and reading ability is so low that moderately intelligent and diligent dyslexic students will perform better than their non-dyslexic peers . . . I have had highly intelligent [dyslexic] students who simply couldn't spell, but they were rare. I regularly have [non-dyslexic] students who can neither read nor write properly, either because they simply can't be bothered, or because they have never been taught, or because it all goes over their head.

(Post'92 History)

Secondary analyses highlighted further differences in the extent and nature of dyslexia awareness amongst subgroups of the overall cohort. Non-parametric Chi-square tests of independence indicated that lecturers working in post'92 institutions were more likely to be offered dyslexia awareness training than their pre'92 colleagues. Post'92 lecturers also registered as being more confident in being able to recognise students' dyslexia-type difficulties. Effect sizes for both these differences fell between the small to medium categories (Phi = 0.277; 272). Additionally, lecturers working within the STEM disciplines were statistically less likely to be aware and more likely to be unsure of the cognitive, emotional and social effects of dyslexia (Cramer's V = 0.176), less likely to be confident and more likely to be unsure about recognising the dyslexia-type difficulties of students (Cramer's V = 0.203), and had more trouble distinguishing between dyslexic students and those who lacked the ability for the academic demands of their courses (Cramer's V = 0.179). Explain use of

Attitudes towards dyslexia and dyslexic students

Despite group level short-comings in lecturers' knowledge and awareness of dyslexia, Figure 1 shows the majority was prepared, at least in theory, to be positive and sympathetic towards the difficulties of dyslexic students. A very high 83% of participants agreed (63% of them "strongly") that problems with reading and writing should not bar an individual from higher education study. Seventy-five percent of the group were prepared to do whatever it took to make all aspects of their teaching accessible to dyslexic students, although only 25% of these "strongly" agreed with the statement – the remaining 50% having some reservations

This [devising specific strategies to enable students with any learning difficulty to succeed] requires extra time, effort and training and most of the time the University management is totally unaware of the extra degree of effort required to attain this when designing and writing course contents.

(Pre'92 Law)

Disability status of dyslexic students

A formal diagnosis of dyslexia generally entitles UK students to reasonable adjustments in assessments. If it can be shown that their difficulties meet the Equality Act 2010 definition of disability these reasonable adjustments are mandatory, and the student also eligible for additional government-funded learning provision from the Disabled Students Allowance (DSA). Figure 2 displays the views of the 162 lecturers surveyed on aspects around the disability status of dyslexic students.

Insert Figure 2 here

The results illustrate the uncertainty and lack of consensus amongst lecturers as to both the meaning of the term "disability" and the synonymy between this and dyslexia. Notable is the magnitude of each of the "unsure" categories, a further reflection of the piecemeal and confused

awareness highlighted above. Most participants (63%) thought it right that the Equality Act 2010 recognised dyslexia as a disability. Their reasons for this, however, were not necessarily based upon a belief that dyslexia complied with the Act's definition of disability. Some e.g. referred obliquely to the pragmatic funding advantages of having dyslexia designated as a disability:

The term [disability] is loaded and not necessarily helpful, though I recognise there are real political ramifications for using the term.

(Pre'92 Education)

Most lecturers either agreed (73%) or else were unsure (22%) that some dyslexic students appeared to be no more functionally disabled than some other non-dyslexic students. Forty-three percent did not think of dyslexic students as disabled, preferring to use less emotive terms like contextually "disadvantaged" or, more positively, "differently abled". However, whilst there was a tendency in the textual data to shy away from equating dyslexia with more visually apparent physical disabilities, 40% of participants did recognise dyslexia as being a disabling medical condition:

Dyslexic students have a functional disability. They find it very difficult to process the written word, in a similar way to a visually disabled student, and not similar to students with poor spelling or grammar abilities.

(Post'92 Social Sciences)

There appeared to be minimal support for the social model of disability as it applied to dyslexic students. Only 22% saw dyslexic students' difficulties as caused by their institution's literacy barriers. Twenty-five percent were "unsure" but most (53%) disagreed, implying that they regarded dyslexia as a disabling medical condition caused by in-person impairments.

Confusion around the concepts of disability and dyslexia, and the ability to recognise both, was inherent in the responses to the survey item requiring lecturers to give their opinions on whether or not they thought that an increasing number of diagnosed dyslexic students was "playing the system". Tellingly, the modal response (42%) was "unsure", whilst only just over a third (37%) felt confident enough in their knowledge of dyslexia to assert that most labelled dyslexics were genuine.

Equity issues and reasonable adjustments

Insert Figure 3 here

Cursory inspection of Figure 3 suggests that at the group level, most lecturers (75%) were generally comfortable with "more favourable" treatment in terms of statutory reasonable adjustments for dyslexic students. Nevertheless, only 17% "strongly" agreed, implying that the rest had some reservations. Whilst only small minorities thought that extra time could give some dyslexic students an unfair advantage (15%), feared that academic standards were being eroded by reasonable adjustments (14%), and that reasonable adjustments were incompatible with academic meritocracy (10%), noticeably larger minorities were uncomfortable with dyslexia marking policies (23%), would not seriously consider alternatives to written exams or coursework (24%), and thought that reasonable adjustments for dyslexic students could be discriminatory towards other students whose literacy skills were similarly affected due to their socio-cultural or ethnic backgrounds (29%). Many admitted to being unsure.

Individual lecturers based their objections to reasonable adjustments for dyslexic students on their incompatibility with professional expectations and competency standards:

Whatever the legislation, reasonable adjustments just don't exist in the real world and we are not preparing students for the reality of life in ANY field by not supporting and demanding improvements. This is also true for literacy of students from disadvantaged backgrounds. Support, not excuses.

(Pre'92 History)

Some thought that the relevant literacy and study skills should be developed before a student embarked on a degree programme:

. . . rather than admit anyone no matter what difficulties they have and then tell those running the course to make allowances for people who can't meet the requirements - this is unfair to staff, students as whole, and also to students with difficulties.

(Post '92 Archaeology)

Consideration of equity issues provoked most noticeable dissension amongst lecturers on the subject of reasonable adjustments for dyslexic students and not for other non-diagnosed students with similar difficulties. Figure 3 shows the three quantified categories of responses being almost evenly distributed. Concerned individuals cited the seeming heterogeneity of diagnosis:

Misdiagnosis and the variability in severity . . . make it difficult to justify lightening assessment criteria [for dyslexics] over students with literacy issues owing to poor secondary education provision.

(Post'92 History)

Others maintained vehemently that dyslexia is a diagnosed medical condition and that those suffering from its difficulties should not be compared with students whose academic struggles were due to other causes:

It makes no more sense than to argue that it is discriminatory to give a wheelchair to someone who cannot walk, and not give one to someone who is fat and unfit. Fat and unfit are curable. Socio-cultural or ethnic backgrounds can be addressed. Dyslexia cannot be cured.

(Pre'92 Education)

The opinions of most lecturers (39%) though, fell into the undecided, "unsure" category, perhaps a reflection of insecure knowledge of dyslexia combined with the state of affairs honestly articulated by the following participant:

I haven't had to think these ideas through before. I would be very interested in the opinions of others who have given thought to the academic and political implications of equality and diversity issues in higher education.

(Pre'92 History)

Again, there were some differences in attitude between the STEM group of lecturers and others. STEM participants were more likely to agree that additional time can give some dyslexic students an unfair advantage (Cramer's V = 0.205). They were also less likely to agree, and more unsure, about being able to provide alternatives to written coursework and examinations (Cramer's V = 0.175).

Replacing bespoke provision for dyslexic students with inclusive practices

Insert Figure 4 here

One of the most noticeable features of Figure 4 is the magnitude of each of the "unsure" categories. Six out of the 9 items scored an "unsure" response of more than 25%. Another feature, not obvious from the quantified group results, is the significant intergroup differences. Lecturers working within the post'92 institutions were more likely to be happier with the current assessment system of reasonable adjustments (Phi = 0.224), to regard dyslexia as non-categorical (Phi = 0.196), and to be aware of irreconcilable tensions between Widening Participation (a UK Government initiative to increase HE participation) and competency standards (Phi – 0.272). Lecturers working within the pre'92 institutions were more likely to

be unsure about the practicality of inclusive systems (Phi = 0.257) and about the effect of any stigma attached to specialist provision for dyslexic students (Phi = 0.205).

Despite 60% of participants thinking that fully inclusive systems of teaching, learning and assessment were preferable to targeted differentiated provision for dyslexic students, roughly the same proportion agreed that inclusive agendas make heavy demands on time and resources (60%), that one all-inclusive system of teaching and learning was idealistic and unrealistic (53%) and that it would not be possible for them to design equivalent modes to written exams and assessments (34%).

There appeared to be some muddled thinking around many of the issues surveyed in this section of the questionnaire. Crosstabulation analyses revealed some participants agreeing with seemingly contradictory statements. For example, 63% of participants who agreed that inclusion was preferable to differentiated provision also agreed that there was nothing wrong with the current system of reasonable adjustments; only 52% of lecturers who were prepared to do all that was possible to make their teaching accessible to dyslexic students thought it possible that they could design equivalent alternatives to written assessments; 82% of participants who agreed that high literacy standards were central to academic learning also disagreed with the statement that Higher Education is no place for those with literacy problems.

Uncertainty and possibly irreconcilable differences in opinion between and among different participants and subgroups of participants were reflected in clarifying textual comments. Reservations attendant upon generally positive attitudes towards inclusion are exemplified in the following:

I believe that an inclusive approach to cater for all students would be ideal (although it may be unrealistic to find such a solution for all students), but it would require more staff. Lecturers are working ridiculous

hours even now, and for most of us there is simply no way to take on extra work e.g. for designing alternative methods of assessment.

(Pre'92 Maths)

Variation in individual lecturer's understanding of dyslexia were apparent in their comments on what they assumed were the dyslexic difficulties that would need to be accommodated by inclusive practices. Whilst most appeared to equate dyslexia with poor literacy standards *per se*, others displayed a more nuanced understanding of dyslexia literacy difficulties unrelated to what might be commonly regarded as inadequate literacy skills and cognisant of the much researched cognitive processing differences:

People with a limp can still walk, but it is often more of a struggle for them.

(Pre'92 Education)

Literacy and dyslexia are not mutually incompatible. It depends upon your definition of literacy standards. Literacy is about writing; dyslexia means a writing difficulty.

(Post'92 Social Work)

Discussion

The data from this research replicate and reinforce the main thematic concerns highlighted by previous, mostly smaller, qualitative studies such as those cited in the introduction to this study. However, being the surveyed perceptions of a comprehensive, albeit self-selecting, sample of 164 lecturers, they add to knowledge in the field by revealing not only the nature of lecturers' attitudes and opinions around dyslexia, but also an important measure of their prevalence. In this respect, the data expose an unexpected positivity towards both dyslexic students and legislative policies such as reasonable adjustments. Critical scrutiny of this positivity though, raises important theoretical and ethical questions about current disability policy and pedagogical practice for UK dyslexic higher education students. It is, to a large extent,

underpinned by knowledge assumptions about the dyslexia concept that have been superseded by current research findings.

Dyslexia Awareness

The data confirm concerns critically highlighted in previous research about the extent and quality of lecturers' dyslexia awareness. Pertinently, much of the knowledge that many of the participant lecturers had about dyslexia has been revealed as contextual and based more on personal and professional experience of diagnosed dyslexic students than on familiarity with current research findings. Additionally, where researched knowledge had been acquired, it typically involved outmoded understandings. Although current research findings and their operationalisation into higher education diagnostic assessment practice are complex and confusing (Ryder & Norwich, 2018) there is general consensus in the research field about the non-categorical, continuous and interactive nature of learning differences like dyslexia (Bishop, 2012; Hulme & Snowling, 2009). Participants' quantified survey responses and clarifying comments revealed much concern about the heterogeneity of diagnosed dyslexic students, and at the often indistinguishability between some of them and other students with similar academic weaknesses. There was, though, little recognition that this heterogeneity merely reflected interactive bio-psycho-social models of the concept widely acknowledged by researchers and operationalised by assessors. Instead, as observed in previous studies (Griffin & Pollak, 2009; Madriaga, 2007; Mortimore, 2013; Riddell & Weedon, 2006) an outdated medical deficit disablist model of dyslexia predominated, one which erroneously assumed a binary divide between diagnosed dyslexic students and others. Two decades ago Stanovich (1999) drew attention to the gap between advances in the dyslexia research field and educational and legal practice; more recently, the issue has been highlighted by what has been termed "the dyslexia debate" (Elliott & Grigorenko, 2014). More widespread provision of research-based dyslexia awareness training would help to close what, for UK higher education institutions, is an embarrassing gap between research knowledge and practice.

Lecturers' predominant erroneous perception of a categorical medical model of dyslexia in the face of the research field's acknowledgement of a more interactive one is mirrored in and encouraged by current disability legislation and institutional policy. Stuebing et al., (2002), have lamented that emerging research knowledge is not the basis for classification in the law, that e.g. "the law does not allow for judgements that learning difficulties are invariably on a continuum" (Kelman & Lester, 1997). Disability legislation and higher education policy are still based on an assumption that dyslexia is an identifiable discrete category of disability, one for which psychometric "proof" can, and commonly does, confer automatic disability status on an individual so diagnosed. The data summarised in Figures 1- 4 illustrate the resultant tension that many lecturers experienced between their desire to employ politically correct pedagogic practices, as dictated by the law and their institutions' implementation of it, and their own personal observation of the heterogeneous behavioural characteristics of diagnosed dyslexic students.

Positive Attitudes

Perceptions of dyslexia as a medical condition that can be reliably diagnosed could be partly responsible for the majority of this study's participants expressing positive and sympathetic attitudes towards dyslexia and dyslexic students, despite some of their misgivings. Past research has focussed on the "barriers" created by the negative "disablist" attitudes of many lecturers (Mortimore & Crozier, 2006; Griffin & Pollak, 2009; Madriaga, Hanson, Kay, & Walker, 2011); this study's quantitative data help put such criticisms into a broader perspective, thereby providing a more balanced, less pessimistic view of the prevalence of unhelpful attitudinal

factors. Most lecturer participants in this study (over 75%) were keen to be supportive of those students who struggle due to cognitive differences. The provision of more detailed up-to-date knowledge of the researched nuances of the dyslexia label could capitalise on this positivity, enlightening pedagogic practice. It could even facilitate the amelioration of minority negative attitudes by dispelling some of the erroneous, confusing assumptions on which such attitudes are commonly based.

Disability status

More detailed up-to-date awareness of researched dyslexia knowledge might also help clarify what this research has revealed as lecturers' confusion and uncertainty around their institutions' assumed synonymy between dyslexia and disability. The research field has long warned about the difference between a diagnosis of dyslexia and eligibility for disability services (Emerson Dickman, 2017). Despite critical recognition that in the context of higher education "disabled student" is an amorphous term (Seale, 2017), and that from a measurement and resource perspective disability is a moving target (Snowling, 2013), HESA officially recognises self-identified dyslexia, in the categorical sense, as one of the disability criteria for the purposes of collecting and recording of disability data. Additionally, most UK higher education institutions still accept a formal diagnosis of dyslexia, regardless of severity or individual contextual difficulties, as a blanket passport to disability eligibility for common statutory reasonable adjustments like extra time in examinations. Higher education policy makers would do well to consider not only the existing anomalies between their regulations and current dyslexia research knowledge, but also the serious equity issues to which such critically unexamined policies can give rise (Elliott, 2014).

Equity issues and reasonable adjustments

This study's participants' generally positive attitudes towards reasonable adjustments for dyslexic students are also unexpected. Not only are they at odds with those recorded in smaller qualitative empirical studies (Cameron & Nunkoosing, 2012; Riddell & Weedon, 2006), but also with others which criticise the concept from a theoretical stance. Few of the study participants, for example, appear influenced by the arguments that any adjustment to an assessment is actually a modification of its criteria, thereby threatening the reliability and validity of the assessment (Davis, 2009; Sharp & Earle, 2000).

However, whilst the majority of lecturers appeared not to question the concept of reasonable adjustments for diagnosed dyslexic students, quantified data illustrate some disquiet around the prioritising of dyslexic students over non-dyslexic students observed to have similar difficulties. Implied was the opinion amongst many lecturers that this practice was unfair, and that this latter group of contextually disadvantaged students might also be deserving of reasonable adjustments. Such equity concerns have been raised in the critical literature (Madriaga et al., 2010; Mortimore & Crozier, 2006) and in the media (Elliott, 2014). It is notable, then, that amongst this study's lecturers there appeared to be many unformed, unexamined opinions on the issue, indicated by the 39% "unsure" response to the relevant questionnaire item. A recent review of progress towards inclusion of specific learning difficulties (SpLDs) pointedly alluded to the presence of such unexamined, possibly uniformed, opinions when it noted that discussion around what defines a reasonable adjustment would need to become more prevalent (HEFCE, 2015); as UK HE institutions move towards a more inclusive model of teaching and learning demand will increase on all lecturers to actively engage with such equity issues.

Inclusive rather than bespoke provision

Evidence from this study suggests that many lecturers are still to engage with issues around an inclusive social-model, as opposed to be poke medical-model, provision for dyslexic students. In keeping with observations made in the literature about the impracticality of maintaining ethically "pure" positions on inclusion (Norwich, 2013), and the reluctant recognition by one of the concept's strongest advocates of it being a "utopian vision", albeit a desirable one, (Barnes, 2007, November), the current study illustrated tensions and dilemmas between theoretical beliefs and practice in the views of lecturers surveyed. Such tensions and dilemmas are replicated at the legislative level. A government equality analysis carried out to examine the potential effects of proposed changes to the UK Disabled Students Allowances (BIS, 2014), generally assumed that individual support based on a medical deficit model of dyslexia would change to proactive mainstreamed social model support available to all students. However, it concluded with a compromise, also acceded by a previous study on the subject (Fuller et al., 2006). The equality analysis accepted a mixed model of support as inevitable: institutional inclusive practices involving anticipatory reasonable adjustments, which it surmised should be sufficient for students with "mild" dyslexia, and additional centralised funding for students with "moderate" to "severe" SpLD. The combined data from this study also indicate, in line with the HEFCE (2015) review, that in addition to such practical compromises, more intractable factors such as differences amongst personal and institutional values and beliefs, will have a significant impact on the availability and nature of inclusive provision for dyslexic students.

Conclusion

Higher education lecturers have no say over which students accrue the dyslexia label. They do, though, need to be armed with the necessary, albeit complex, knowledge about the condition, as currently diagnosed, in order to ensure the efficacy and quality of their pedagogic practices, as well as to engage fully with legislative and institutional policies aimed at securing fair and

equal access to higher education for all students. The findings from this study suggest that many are not so armed, and that research-based recognition of the heterogeneity of diagnosed dyslexic students, and of their equally heterogeneous support requirements, should inform the provision of much needed, more widespread awareness training. Future research could profitably explore how this might be best provided.

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- Figure 1. Lecturers' awareness of, and attitudes towards, dyslexia and dyslexic students
- Figure 2. Lecturers' views on the disability status of dyslexic students
- Figure 3. Lecturers' opinions on reasonable adjustments for dyslexic students
- Figure 4. Lecturers views on fully inclusive systems being able to replace bespoke provision for dyslexic students







