Creating inclusive environments for students with declared dyslexia studying online in higher education

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Abstract

This qualitative study explores online tutors with personal and meaningful experiences (TPME) and their impact on the support and assessments of students with dyslexia in higher education. Specifically, it examines the strategies these tutors use when evaluating the assignments of students with declared dyslexia and their efforts to foster inclusive learning environments. The research methodology included using two vignettes and semi-structured interviews, which were designed to examine TPMEs' decision-making processes and their strategies for providing appropriate support for dyslexic learners and for assessing their written work. The study involved six online tutors who taught undergraduate and postgraduate students at a business school in the United Kingdom. The findings reveal that TPMEs' pedagogical approaches were strongly influenced by their personal experiences with individuals with dyslexia. Tutors with such experiences offered richer, more authentic insights and demonstrated a deep understanding of the unique challenges faced by dyslexic students. They also shared examples of how andragogy can be adapted to support learners who approach academic tasks from different perspectives. These findings reinforce the significance of the social model of disability, which advocates the design of inclusive and accessible educational materials and environments that benefit all learners. Based on these findings, the study proposes a model for enhancing peer learning and fostering inclusive practices and environments in higher education. This model could play a pivotal role in shaping university policies and practices, helping institutions better meet the needs of dyslexic learners and creating more inclusive learning environments.

Keywords

dyslexia; inclusive environments; online learning; social model; tutors

1   Introduction

In the academic year 2021/22, a survey conducted by the Higher Education Statistics Agency (HESA, 2023) revealed that approximately 144,230 students with specific learning difficulties (SpLDs), such as dyslexia, were enrolled in higher education institutions (HEIs) in the United Kingdom (UK). This accounted for 32% of all students in the UK who declared a disability (HESA, 2023). The British Dyslexia Association (BDA, 2024) states that dyslexia affects 10% of the UK population, making it one of the most prevalent specific learning difficulties.

Dyslexia is a learning difficulty that affects an individual's ability to read fluently and spell accurately (Rose, 2009). The key features of dyslexia may include challenges in areas such as verbal memory, verbal processing speed, and phonological awareness. Individuals with dyslexia may experience co-occurring difficulties that further affect their learning processes, including challenges relating to language, motor coordination, mental calculations, concentration, and personal organisation. In the UK, the Equality Act (2010) recognizes dyslexia as a disability, mandating that public bodies, including HEIs, demonstrate that they are actively working towards promoting equality of opportunity for students with dyslexia.

Research suggests that the lived experiences of online tutors offer valuable insights that can inform discussions about organizing provisions for students with dyslexia (Cameron & Nunkoosing, 2012) and how inclusive environments enhance learners' educational experiences. The opportunity to interact either asynchronously or synchronously in online learning environments results in positive engagement outcomes for students. Asynchronous eLearning is positively associated with connecting with the learning community. Furthermore, synchronous interactions results in immediate responses from peers and tutors and relaxed and spontaneous interactions (Watts, 2016).

However, there has been limited empirical research into how the lived experiences and perspectives of academic staff can support students with dyslexia and their role in creating inclusive environments. Our study contributes to this body of knowledge by exploring the lived experiences and perspectives of online tutors with personal and meaningful experiences (TPMEs) of people with dyslexia.

This study examined the extent to which the lived experiences of online TPMEs influenced the support they provided and the strategies they employed when assessing the work of students with declared dyslexia in UK HEIs. Using vignettes and semi-structured interviews within the framework of the social model (Barnes, 2019), this research explored the impact of these lived experiences in the context of online higher education. While previous academic research tended to focus on the support needs of students with dyslexia in HE, this study explores the interplay between TPMEs, their attempts to create inclusive environments and practical approaches used to provide appropriate support with a view to identifying their influence on the ongoing efforts to improve the support provided for students with dyslexia who are studying online in HEIs

2   Theoretical framework

2.1   The social model

The social model of disability presents a critical framework that distinguishes between "impairment" and "disability." It argues that disabilities are socially constructed rather than intrinsic to individuals with impairments (Barnes, 2019). In this context, "impairment" refers to physical or mental conditions, and "disability" relates to the limitations placed on individuals by societal structures that fail to accommodate their needs. This distinction is significant because it shifts the focus from individual deficits to societal barriers, emphasising that it is not the limitations of individuals' bodies that restrict their abilities, instead, societal organisation enforces these limitations (Oliver, 2013).

The social model contends that society's failure to remove environmental barriers results in the isolation of individuals with impairments and excludes them from fully participating in their community (Barnes, 2019). Oliver (2013) argues that such exclusion arises from societal reluctance or from neglecting to dismantle barriers, coupled with the prevailing notion that individuals with impairments are less capable of engaging in societal activities. This perspective underscores the need for societal transformation to promote inclusivity.

Barnes (2019) contends that because of the social model's attempt to separate impairment and disability it fails to view impairment as an observable attribute of an individual that is an essential aspect of that individual's lived experience. However, Oliver (2013) proposes that the social model also demonstrates that inequalities exist between individuals with and without impairments and that these differences are created by disabilities that are socially constructed.

2.2   Inclusive Learning Environments

Online HEIs across Europe have successfully expanded access for students (Skvorcovs et al. 2018). Distance learning courses are designed to meet the needs of students who have to combine their academic studies with professional commitments and family life (Nimante et al., 2022). Despite these positive aspects, distance learning faces many issues including a lack of a sense of belonging.

The social model's application to education, particularly in HEIs, underscores its relevance in promoting inclusive learning environments. International governments have demonstrated an increased commitment to inclusive environments in education since the 1990s (Ainscow, 2020; European Commission/EACEA/Eurydice, 2022). Inclusive environments in HEIs are defined as the provision of equal educational opportunities for every student (Ainscow, 2020) regardless of their background, body, and perspective (Stentiford & Koutsouris, 2021). It is often argued that education that is accessible and inclusive results in increased overall equity in society (Lister, 2020; Shaeffer, 2019). Equity can be defined as the fair treatment of everyone that ensures equal access and equal education opportunities (Altes et al., 2024).

The social model demonstrates that it is important when establishing equal opportunities in HEIs to view students with impairments as assets to the academic community and not as deficits or problems (Morina, 2017). Sturm (2019) contends that inclusive environments in HEIs should focus on providing a well-rounded education for every student.

Despite these aspirations, the HEI faces significant challenges concerning implementing inclusive learning environments. A major barrier is the lack of a clear definition of what constitutes an inclusive environment, leading to varying practices across institutions and even among individual tutors operating in the same HEI (Ainscow, 2020; Stentiford & Koutsouris, 2021). This lack of clarity can create confusion and inconsistency regarding efforts to promote inclusion,

making it difficult to achieve a standardised approach (Cotan et al., 2021; Svendby, 2020). Altes et al., (2024) define inclusive environments as spaces where learning takes place, that include the tools, culture, and organization that provide every student with equal educational opportunities. Students' learning is influenced by a wide variety of actors such as tutors, students, HEIs, and policymakers. The collaboration between these actors is important for establishing and improving inclusive learning environments (Cotan, 2021; Gerdes, et al., 2021; Shaeffer, 2019). Therefore, the role of tutors is particularly critical in this process, as they often serve as the primary point of contact for students and are responsible for implementing inclusive practices in their teaching and learning.

Stentiford and Koutsouris (2021) contend that tutors in HEIs demonstrate their understanding of inclusion through their attitude toward who they believe is responsible for the development of inclusive environments for students. These tutors unconsciously use the social model approach which support the attitude that inclusion is created by the HEI, and the tutor and the student have the joint responsibility to try to remove the barriers that often prevent students from becoming engaged and active learners and receiving equal treatment. For distance learning to take place in inclusive environments, it is important that tutors intentionally take actions to foster such learning environments (Martin et al., 2023). Some studies indicate that tutors tend to describe inclusive environments in HEIs using terms such as "attitudes" (Altes et al., 2024), "perceptions" (Lorenzo-Lledo et al., 2020) and "views" (O'Shea et al., 2016). The most frequently used term "attitudes" appears to be used interchangeably with "views" and "perceptions", so this study will use the term "attitudes" to reflect the views and perceptions of the participants.

The limited research regarding inclusive environments in HEIs and the lack of clarity regarding the concept mean that it is essential to explore and analyse the knowledge and practices of TPMEs in HEIs in a distance learning setting. This study will explore the perspectives of these tutors' understanding of inclusive learning environments and any challenges they may have experienced in establishing inclusive environments in a higher education (HE) setting.

Drivers: 'Drivers' describe those factors which generate interest in innovative practice with OER. Drivers can be economic, political, cultural, ideological, institutional or personal.

Barriers: 'Barriers' impede or prevent innovative practice with OER. In the initial review of literature, the terms "barriers" and "challenges" were treated separately. This proved not to be meaningful since these terms are often used interchangeably. In the reporting below they are combined into one category. Barriers are obstacles or challenges that impede the successful implementation and adoption of OER in educational contexts. In this study we focus on those factors which are reported to affect innovation behaviours.

Enablers: 'Enablers' are factors or strategies that facilitate the successful integration and adoption of OER innovations in educational settings. Enablers reflect a degree of maturity in an OER implementation and are themselves often the reported results of innovation or experimentation. Many of the enablers identified originate from a change in institutional or business practice, the basis of which was the attempt to overcome or solve a problem limiting the use of OER.

3 Methodology

The focus of the study was to explore the lived experiences of online TPMEs who were working with students with declared dyslexia. We, therefore, chose to employ qualitative research methods because the study's purpose was to explore whether these lived experiences had any impact on the knowledge and strategies the tutors used when providing support to students with dyslexia, assessing their work, providing feedback, and creating inclusive environments online.

The main study focused on 13 tutors who were associate lecturers in a faculty of business and law. Convenience sampling was used; the online tutors received an email inviting them to take part in the study. Six participants (five women and one man) were chosen either because they had personal experience of dyslexia or because they had close family relatives with a dyslexia diagnosis. These online tutors had worked in HE for between two and ten years.

The study was approved by the Human Research Ethics Committee. All participants completed consent forms after the research goals, processes and participants' rights were explained to them. They were told they could withdraw at any time and no incentives were offered to participate in the study. The collection and handling of all data in the project met the requirements of the UK General Data Protection Regulation (UKGDPR) (Data Protection Act, 2018). All transcripts were anonymized.

3.1 Design

The research design consisted of an integrated method of using vignette-based case studies (Wilkes, 2004) and semi-structured interviews. A vignette study design was chosen because it is a common way of understanding the decisions and behaviours that participants may exhibit in real-life scenarios (Renold, 2002). Two vignettes were developed by the research team based on findings from conversations with online tutors and the aim of these was to help the participants to respond authentically. They did not include unusual or exaggerated situations or characters (Hughes & Huby, 2004) and instead represented general scenarios that the tutors encountered during their work.

Both vignettes were emailed to each participant in advance of their interview, and they were informed that the stories focused on assessment of and feedback to students with dyslexia. The timing of the interviews in relation to the vignettes was to enable participants to reflect on their practices and to encourage responses relating to their professional and personal insights, experiences, attitudes and beliefs (Tremblay et al., 2022). It was explained that the intention was to gain an understanding of their practices/lived experiences through their discursive answers. The vignettes were used specifically to elicit the participants' knowledge and to investigate their attitudes regarding how to support students with dyslexia and provide feedback on their assignments.

Semi-structured interviews were employed to gain a more nuanced understanding of the specific situations in which tutors found themselves and to determine the following:

- whether online tutors understood how to make reasonable adjustments,
- what strategies and resources tutors used to support students with dyslexia,
- what strategies and resources tutors used to provide feedback to students after marking assignments,
- what professional development activities tutors had undertaken to help them work effectively with students with dyslexia,
- what strategies tutors used to foster inclusive environments for students with dyslexia.

3.2   Data collection and analysis

Interview protocols were determined prior to the data collection. Four different interviewers were involved in the collection of data and to ensure a consistent participant experience and eliminate interviewer bias, a fifth member of the larger study team observed the process.

All interviews were conducted using Microsoft Teams during spring 2024 and each interview lasted approximately 50 minutes. Once all the interviews were completed, the data was analysed using a transcription of the audio recordings.

All members of the research team were involved in the analysis of the data. To make sense of the data, a thematic approach was applied because the focus was on revealing emerging themes with specific areas of focus rather than summaries of the data collected (Braun & Clarke, 2019). Each transcript was reviewed by more than one researcher and the team compared and discussed the analyses of the themes before the final themes that best represented the data were developed. Responses were analyzed by comparing the meanings of the tutors' lived worlds such as emerging practices (Hughes & Huby, 2004), the type of learning demonstrated (Argyris & Schon, 1996) and the competencies used (Sandberg & Dall'Alba, 2009).

4   Findings and discussion

This section presents the findings on how the lived experiences of online TPMEs influenced the support they provided and the strategies they employed when assessing students' work. The study also explored the tutors' perspectives on and approaches to fostering inclusive environments in HE.

4.1   Tutors' personal and lived experience with Dyslexia

This study focused on tutors who either have dyslexia themselves or personal experiences with dyslexia (studied online at a UK university and were later employed as distance learning tutors) or have lived closely with family members who have dyslexia. These tutors' personal connections to dyslexia provide them with unique insights and a deep understanding of the challenges faced by dyslexic students studying online. This lived experience has become an integral part of their andragogical approach (Knowles, 1972) influencing how they support adult learners in online learning environments.

For instance, Tutor 3, who identifies as dyslexic, describes their approach as almost a "pet project," reflecting their personal commitment to understanding and mitigating the challenges that dyslexic students face. Tutor 4 also has dyslexic identity and highlights how it affects their teaching strategies, particularly when dealing with large amounts of written material. Both tutors illustrate how their lived experiences with dyslexia enable them to empathize with students and adapt their teaching to be more inclusive.

> "… bizarrely, I'm dyslexic as well. So, it kind of makes it as sort of a pet project for me in terms of being… Have that awareness of some of the challenges." (Tutor 3)

> "And I should tell you, I have dyslexia, so, um, to be honest, big, texty stuff, um, I tend to just try and do the best job I can for all my students." (Tutor 4)

Some tutors have significant experience of living with family members who have dyslexia. For example, Tutor 5, who has two children with dyslexia, claims to have developed substantial knowledge on the subject, while Tutor 6 suggests that their nephew's dyslexia has deepened their understanding.

"I will add I've got you know, no qualms in saying I think I've got quite a lot of knowledge on dyslexia now because I have two children with dyslexia." (Tutor 5)

"Think I'm probably dyslexic?... I have a nephew who is dyslexic." (Tutor 6)

The tutors' lived experiences also heightened their awareness of how educational resources, particularly in online HE environments, can present challenges for dyslexic learners. Tutor 3, for example, reflects on the overwhelming volume of visual and written content on virtual learning platforms, noting that for dyslexic individuals, navigating such dense material can be "terrifying."

"And I also think a lot of it is so visual and written. You know, I look at TutorHome, and I look at all that, and I look at the VLE [Virtual Learning Environment] and there's so much there. It's page after page of written text. And I think to myself, as, as a dyslexic person, I think to myself, you know what? That's great, and it's all really helpful and handy, however it's terrifying." (Tutor 3)

4.2 Recognition of dyslexia

In the online learning environment TPMEs play a pivotal role in recognizing and supporting students who exhibit characteristics of dyslexia, even before a formal diagnosis is made. These tutors tend to be driven by a strong sense of responsibility and often do not wait for students to disclose their difficulties; instead, they proactively approach students with sensitivity and discretion. For instance, as Tutor 1 recalls,

"...she wasn't declared as dyslexic at that point... And from the moment I started to read her first assignments, I recognized all the signs." (Tutor 1)

Another example illustrates a tutor's identification of recurring errors, such as confusing "hireretical" with "hierarchical," this could be problematic in a business context where clear communication, including correct spelling and grammar, are essential. By flagging such issues, the tutor not only helps the student improve their spelling and language skills but also ensures they meet the professional standards expected in their field of study.

"I had a student writing all the time about "hireretical" rather than "hierarchical." And so, it's something like that. You kind of have to flag up." (Tutor 2)

4.3 Empathy towards students

TPMEs clearly recognize the issues that can be caused by the reluctance of some students to declare their dyslexia due to their deep concerns about how they may be perceived or treated by their tutor and possibly even discriminated against. Tutor 5 and Tutor 6 reveal that some students hesitated to declare their dyslexia because they were worried about being labelled or unfairly judged. This demonstrates the psychological and social barriers that many dyslexic students face in online academic and professional environments.

"Never ever, ever told them that he was dyslexic, refused to tell them he was dyslexic because he was frightened he'd be marked down for it, or labeled or something." (Tutor 6)

"I've had a couple of people say [to me] I've long had my suspicions about myself, but I don't know how to get a diagnosis. And I'm really scared about my employer finding out. This has happened to me three times so far." (Tutor 5)

On the other hand, Tutor 4 proactively approached a student, with the intention of understanding what adjustments or accommodations could be made to support their online learning. However,

the student's response was to reject the perception of dyslexia as a disability and to state that they did not view themselves as disabled. This demonstrates that not all students with dyslexia align with the disability identity constructed by the social model.

> "I would say, oh, you know, I've read this stuff about your disability, and I want to make sure that I understand any adjustments. I had a few people come back saying, I don't see myself as having a disability…So I don't even mention disability now. I just go, you know, are there things that will be helpful to you. (Tutor 4)

As a result of this conversation, Tutor 4 adapted their language and approach. This change reflects a more inclusive and individualized approach in online HE, that respects students' personal identities and preferences regarding how they perceive their dyslexia.

TPMEs proactive and empathetic approaches reflect a deeper understanding of the challenges faced by dyslexic students, allowing them to tailor their support strategies to meet individual needs.

> "I introduced students to [The Dyslexia Association website] because it helps them to, to not think of their dyslexia as a, as a challenge. But to help them think about it in, in its proper context, that actually, you know, it's just a different way of thinking." (Tutor 3)

Similarly, Tutor 4 provides a nuanced reflection on their philosophy by metaphorically describing their role as "finding the gold" in students' work even when it is more challenging to do so because the work has an unconventional language structure and spelling errors. This attitude is crucial for enabling students to feel valued, supported and included in online learning environments rather than being penalized.

> "…you know, helping me find the gold in their work. And if the gold is packed into a very long paragraph, um, then it's harder for me to find the gold. I will still look for the gold, but it's harder for me find it." (Tutor 4)

4.4   TPMEs' Supporting Roles

TPMEs tended to base the level of support provided on the needs of individual students instead of using the same approach for all learners with dyslexia in their tutor groups.

4.4.1   Support during study

Although this study primarily focused on online tutors' assessment of students' work, it also identified the supporting roles and attitudes of TPMEs. These practices and beliefs were used when preparing students for assessments and supporting them in writing assignments. These were highlighted as critical mechanisms for aiding this student group and ultimately creating inclusive environments. The TPMEs demonstrate a unique, empathetic approach that goes beyond standard teaching practices in online HEIs, recognizing and accommodating the individual needs and strengths of each student.

For instance, Tutor 5 emphasises the importance of personalized feedback that is based on information gathered from initial communications with students. This proactive approach ensures that tutors can address specific challenges and provide support that fits with each student's learning style.

> "The tailored feedback I provide is based on the information I get when I send my introductory email." (Tutor 5).

Similarly, Tutor 4 highlights their practice of sending slides in advance to students with declared disabilities, acknowledging that this small yet significant step can greatly enhance a dyslexic student's ability to engage with learning materials.

> "So as a default, when I'm doing tutorials, for example, I look up who has a D [disability], and I will… By default, I'll send them the slides in advance. And often students say to me I'm the only one who does that. So, if I'm the only person doing that, then that's not in line with our practice." (Tutor 4)

4.4.2   Attitude when marking assessments

The TPMEs used their techniques and knowledge to make acceptable modifications or reasonable adjustments (in line with the university's guidelines) in their methods of assessment and to ignore some grammar and spelling errors when marking assignments. For instance, Tutor 2 and Tutor 4 said the following:

> "I don't concentrate on the grammar, but partially that's just how I am. It doesn't irritate me. I can't spell myself." (Tutor 2)

> "I guess I've done a bit of research into my own situation. So, I guess there's a kind of a familiarity. You know, it is partly, I guess, why I don't have a heart attack if somebody leaves out a word." (Tutor 4)

This aligns with the social model approach which emphasizes ability over impairment. However, this flexibility can pose challenges regarding maintaining consistency across assessments and modules. As Tutor 2 points out,

> "If they get really good marks with me because I'm rewarding them for their thinking and their understanding, and being a little bit flexible on how that is actually communicated" (Tutor 2)

> "You don't want to set them up so that they can't do that for another tutor, and, and their marks will really plummet." (Tutor 2)

This highlights the importance for online HEIs to review their reasonable adjustments guidance to ensure that they still include appropriate approaches for assessing the assignments of students with dyslexia.

4.5   Constructive and structured feedback

TPMEs in this study demonstrated a heightened sensitivity to the feedback they provided. They often took extra care when writing their feedback, knowing that disorganized or unclear comments could be especially challenging for dyslexic students to navigate. For example, Tutor 2 deliberately chose to "write in shorter sentences".

> "I'm quite careful how I give feedback. I hope I'm careful anyway. But I'm particularly careful if I know the student has dyslexia because it's not helpful if my comments are rambling and not clear." (Tutor 2) and

"It's somebody's work, so you, you know… There's a care there. But I, I deliberately try to write in shorter sentences. Um, to be honest, I don't pick up spelling or anything like that." (Tutor 2)

Furthermore, the practice of recording feedback for students, as noted by Tutor 2, offers an additional layer of support, that allows students to review and reflect on the comments at their own pace. This technique exemplifies the tailored, student-centred approach that TPMEs are likely to employ,

"What I found works is talking to them… I think the most effective thing to do is to record the feedback, so they could stop… You know, have it in writing as well, but stop it, think about it, everything like that" (Tutor 2)

The support provided by TPMEs extends beyond current assessments and significantly influences students' future assignments and overall academic journey. For instance, Tutor 2 noted,

"I find it more effective to open up the dialogue, make sure I speak to them, and take the opportunity to ask them, particularly, you know, before and after the first TMA [Tutor Marked Assignment], you know, did that work? How do you feel about it?" (Tutor 2)

This proactive engagement demonstrates the tutors' recognition of the importance of communication in the learning process and for the creation of inclusive environments where students feel that they belong. By initiating conversations about students' experiences with their assignments, tutors create an inclusive environment where students feel valued and heard. This approach not only empowers students to voice their concerns but also facilitates a deeper understanding of their learning processes.

4.6   Creating inclusive environments based on personal experiences

The study found that TPMEs accepted some responsibility for creating inclusive environments in the online HE context for their students with dyslexia and were willing to make reasonable adjustments to accommodate the individual needs of the students which ultimately also benefits their peers. For instance, Tutor 2's statement, set out next, highlights how TPMEs can forge meaningful connections with students that enhance the learning experience without overwhelming their schedules. The tutor's approach underscores the notion that even brief, focused interactions can lead to substantial improvements in student performance and confidence.

"His marks are improving every time. So, I, I think that connection and being… Feeling… I've never had such a sophisticated relationship before, where I felt it is like one-to-one support, but it's not… It doesn't take a lot of time…, I'm not spending hours with this person. It's, it's, you know, half an hour probably before each TMA." (Tutor 2)

Moreover, the recognition that adjustments made for one student can have a ripple effect on the broader student group illustrates the tutors' holistic view of online HE As Tutor 2 states,

"It's actually improved my whole practice, because I… Then I don't just do it for him. I do it for the rest of the group as well." (Tutor 2)

Tutors also felt that this approach increased students' sense of belonging to the online learning community and supported the creation of an inclusive environment. This knowledge will not only improve their learning experience but also help to foster a supportive environment where students feel motivated to assist each other, thereby reinforcing collaborative learning and peer support.

"One of the things that happened is that he, he emailed me back really, really nicely, saying how helpful it was to talk to me, and literally at the same time, somebody else from the group emailed me to say, I didn't know I could talk to you. I thought, that's odd. So, I went back to the student and said, would you mind me saying to the group that we'd spoken…" (Tutor 2) and

"I think that was quite liberating for him because it was… You know, he was doing a service to the group, as well as helping himself, and he wasn't worried about using my time." (Tutor 2)

The approach also illustrates how individual interactions can inspire a broader dialogue among students, encouraging them to engage with their tutors and each other. The tutor's decision to share this experience with the group not only fostered openness but also empowered students to seek help, thereby normalizing discussions around support and further increasing the sense of an inclusive online learning environment.

Tutor 4 was able to empathize with students they had experienced not feeling that they belonged in the online learning environment and how it felt to be diagnosed with dyslexia. The tutor was able to use their own lived experiences to put in place individual strategies to support the students:

"I mean, it's a long time now since I was a student [online], ….and I worked out that I had dyslexia because I was studying psychology there. I got individual help, but I didn't, I didn't feel part of anything … I had a student who had very recently been diagnosed with dyslexia. And so, she was very newly trying to make sense… how to process the overwhelm of information that came through on her course. So, we just talked about techniques, like using audio and, how to make notes and, and stuff and I think it was helpful at that stage, because I was also newly assessed. So, I talked about what I was learning." (Tutor 4)

An additional challenge regarding the creation of inclusive environments in online HEIs relates to the attitudes of some tutors toward students with a disability and their perceptions of what a "good" student is. Tutor 1 describes a situation in which they felt that they had to advocate for a student during a meeting with other tutors.

"…one of the other tutors saying in [a meeting], 'Well you know we're setting these people up to fail if they're producing this sort of work at the end of stage two...And you know she shouldn't really be on the course.' And I'm saying well actually she is quite good at her job it's just that she can't express herself properly." (Tutor 1)

The norms and perceptions of some tutors may act as a barrier to the creation of inclusive environments and could ultimately exclude some students from online HEIs. This barrier to inclusive environments may be due to practices becoming structurally embedded through local and national policies that reflect the perceptions of the dominant group who have not had personal or meaningful experiences of dyslexia.

Tutors also experience a lack of appropriate resources for improving inclusive learning environments, especially relating to time restrictions as they are required to assess and return assignments within ten days. For instance, Tutor 1 felt that if they had more time to meet with students and to assess their assignments, they would be able to focus on creating a sense of belonging and inclusive environments.

"I would say that if we were given time to explore each individual at the beginning. To find out what their particular strengths and weaknesses are... That would help because that actually gets you into the understanding of what this individual is and what their particular issues are... And I don't think we are able to do enough of that given the volume, the turnaround time, and the pressures, I don't think we're given enough time to do any of that really." (Tutor 1)

In summary, all six TPMEs in this study were found to have positive attitudes toward dyslexia and students with dyslexia studying online. These TPMEs demonstrated a deep understanding of the issues faced by some students. Similar to Cameron and Nunkoosing's (2012) research, the TPMEs in this study showed empathy toward students who were facing issues that needed to be addressed; they appeared to have a high level of awareness and were often able to recognize students with dyslexia even if they were often unaware that they had this condition. Furthermore, the TPMEs viewed dyslexia as a positive label and, had a deep interest in developing their own knowledge about this subject. TPMEs tended to have an extensive toolkit for supporting and assessing students.

This study reinforces the value of tutors' personal insights in shaping inclusive online learning environments and calls for more comprehensive policies to ensure that inclusive practices are consistently applied across cross HEIs. The training of online tutors might benefit from including personal inputs from TPMEs which may assist with improving the quality of support that students with declared dyslexia receive.

5 A Model to leverage an inclusive environment for learning

Based on the findings of this study, we have identified that TMPEs have personal toolkits for and personal approaches to supporting dyslexic students, which can successfully foster an inclusive environment, benefiting not only students but also their fellow tutors through peer-to-peer learning. Their inclusive approach may potentially influence future institutional practices and policy development.

Based on this study we propose an inclusive learning model illustrated in Figure 1 at three levels. L1 (micro) refers to the student cohort, L2 (meso) represents the tutor groups and L3 (macro) encompasses other members of the institution which include HEI policymakers, line managers and other academic colleagues and peers. We suggest that this model could effectively create the inclusive environment necessary to support students with dyslexia, enhancing their learning, assessment, and sense of belonging.

This model may be applicable in both online and face-to-face learning environments. We will illustrate its application using an example from online teaching in the UK context, primarily focussing on tutor-student communication facilitated through a virtual learning environment (VLE) and group forums.
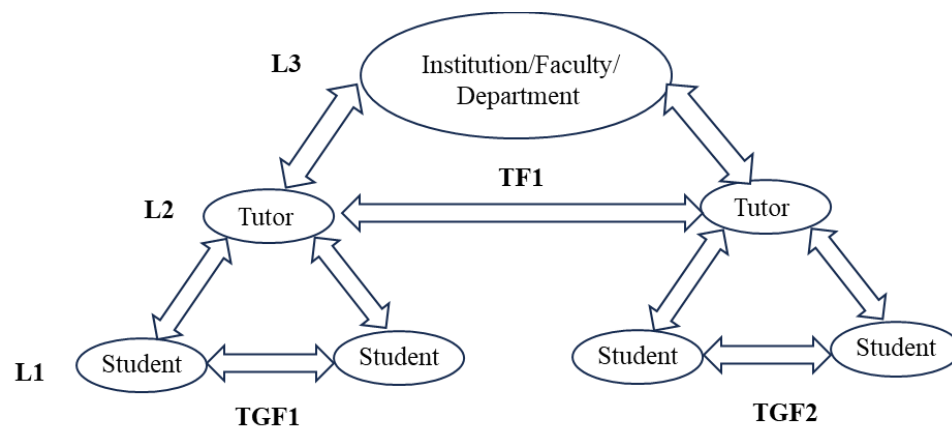
Figure 1. Inclusive Learning Model: Learning, Assessment and Sense of Belonging (Tutor Forum (TF) and Tutor Group Forum (TGF)).

5.1 L1 – Within a TGF (Learning Between Tutor and Student, Student and Student and Student and Tutor)

In the model, TGF refers to a Tutor Group Forum (TGF), an online platform designed for communication between students within a group and their tutors during the study of a specific module. The typical participants in a TGF include one tutor and circa 20 students enrolled in the same module. The forum is used for regular communication, as often as needed. While tutors lead and moderate discussions, with the primary objective to facilitate student learning and address their questions, issues, and academic needs.

Our findings suggest that our TPMEs use the TGF forums as an effective medium for fostering inclusive discussions, thereby promoting greater engagement with and support for students with dyslexia.

Students with dyslexia are often reluctant to engage actively in student forums, particularly regarding posting and commenting. TPMEs actively encourage students with dyslexia to share their experiences in TGFs regarding the support they have received and how it has helped them overcome communication barriers and prepare for assessments. This makes other students feel more comfortable expressing their needs and proposing specific forms of support to address those needs. As a result, other students engage in dialogue with their tutors.

TPMEs also gain insights from the TGFs into the diverse needs of students, enabling them to tailor their support strategies accordingly. For instance, tutors can adapt the delivery of tutorials and customize the format of written or other forms of feedback to better support students' ongoing learning and assessment preparation. This approach enhances the effectiveness of the existing mesosystem including instructional support which fosters improved learning outcomes. Students can apply these practices in different modules by sharing their prior experiences with new tutors, enhancing communication within tutor groups, and promoting inclusivity in other TGFs.

5.2 L2 – Within a TF (Learning Between Tutor and Tutor and Between Tutor and Module Team)

At this particular institute, academics engaged in teaching and learning have various roles. Tutors who are delivery-focused directly interact with students by conducting tutorials and providing daily student support and assessment. The academic team develops teaching and assessment materials and supports tutors in their delivery and assessment. Together, they form a module team. The Tutor Forum (TF) serves as an online platform for the module team to engage in

discussions, exchange insights, and gain feedback. This forum serves as the primary mechanism that tutors can use to raise questions about, for example, teaching materials or address student concerns. As in TGFs, tutors frequently and regularly share their experiences. Communication in the TF is bidirectional between the module team and the tutors, fostering an ongoing exchange of information and support.

Tutors' posts about their experiences in a TF, whether positive or negative, mean that other tutors gain valuable insights. For example, TMPEs, can share the strategies they use to address the needs of students with dyslexia and promote their learning. Tutors without lived experience can then adopt such approaches thereby broadening their understanding of and approaches to assisting diverse learners. Over time, these practices can evolve into common best practices among tutors, fostering a more inclusive and supportive educational environment.

Module teams also learn from what is posted on the forum which can then be applied to other forums. This approach helps to accelerate the dissemination of effective strategies and can inform broader institutional changes aimed at enhancing inclusive teaching practices and support systems across the institution.

5.3 L3 – Institutional Level (Learning between Faculty and Institutions)

The system model of learning theory developed by Gibson et al., (2023) shows how individual learning (micro level) develops to team-based knowledge building (meso level) and further evolves into wider cultural systems such as 'schools of thought' and interdisciplinary fields (macro level).

Based on this theory we found that several strategies that are discussed below can be derived from the practices described in L1 and L2 to implement institutional changes (macro level) that support dyslexic students' learning and assessment.

- **Promote inclusive Tutor-student Interactions:** Encourage tutors to take a proactive role in initiating discussions, particularly in online forums, where dyslexic students may feel reluctant to participate. Tutors should be trained to create an environment where students are comfortable expressing their academic needs and challenges. TPMEs can be mentors to their peer tutors. These practices need to be captured and formally included in institutional guidelines so that they are adopted by every tutor.
- **Utilize peer learning and lived Experience:** Institutional policies should encourage peer-learning approaches that allow students and tutors to share their experiences. By creating a culture of shared learning, tutors without lived experience will be better prepared to support dyslexic students and their peers effectively, leading to a more inclusive learning environment. The use of TFs as a space in which tutors can discuss student needs and share feedback on effective support strategies should be encouraged. Ensuring that all modules incorporate these forums as a standard practice will enhance communication and peer learning between tutors. Module teams should also actively monitor forum discussions to identify effective strategies for supporting dyslexic students.
- **Customise assessment support and formalized guidance:** Tutors should adapt the structure of assessments and feedback to accommodate the needs of dyslexic students. Module teams can work with tutors to explore best practices in feedback delivery, including offering personalized, written, and/or verbal feedback. These practices can be institutionalized to ensure consistency across modules. The institution can formalize guidelines that prioritize inclusive assessment design. This includes having flexible assessment formats and, additional support for preparing assignments, and fostering tutor-student discussions concerning reasonable adjustments for students.

6   Conclusions and limitations

In conclusion, TPMEs can have a unique and positive impact on students by fostering a more understanding and empathetic online learning environment. Their personal insights allow them to relate to the challenges faced by students with dyslexia, which helps to build trust and rapport. As a result, students feel more comfortable and less apprehensive about disclosing their needs and seeking support, ultimately breaking down barriers and encouraging open communication about their learning difficulties.

This study does not aim to suggest that online tutors without personal and meaningful experiences of people with dyslexia are unable to engage with students with dyslexia in significant and important ways. However, this research found that TPMEs tended to have gained a cumulative and in-depth understanding of what it means to be a student with dyslexia that they used when conducting day-to-day tasks as online tutors.

This study was limited in scope given that we explored the lived experiences and attitudes of just six tutors in a business school in a single online university in the UK. This limitation also highlights the potential for bias. However, although our familiarity with the policies, practices, and culture of the online business school used for this study may have influenced our investigation, we were able to address this by using the team approach which involved constantly critically reviewing and discussing the processes used by the team. Despite these limitations, we gained insights from the tutors that could be used to make changes to the management of modules and the support provided for students.

Our study demonstrates that TPMEs perceive that their lived experiences give them the knowledge they need to provide their learners with appropriate guidance. This study suggests that differentiated learning strategies are essential and their impact on the creation of inclusive online learning environments is particularly important because the lived experiences of the TPMEs could be used by online HEIs to create inclusive environments.

References

Ainscow, M. (2020). Promoting inclusion and equity in education: Lessons from international experiences. *Nordic Journal of Studies in Educational Policy, 6*(1), 7–16. https://doi.org/10.1080/20020317.2020.1729587

Altes, T., Willemse, M., Goei, S., & Ehren, M. (2024). Higher education teachers' understandings of and challenges for inclusion and inclusive learning environments: A systematic literature review. *Educational Research Review, 43*, 100605. 1-16. https://doi.org/10.1016/j.edurev.2024.100605

Argyris, C., & Schön, D. A. (1999). Organizational learning II: Theory, method, and practice. Addison-Wesley.

Barnes, C. (2019). Understanding the social model of disability: Past, present and future. In N. Watson, A. Roulstone, & C. Thomas (Eds.). *Routledge handbook of disability studies* (pp. 14-31). Routledge.

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health, 11*(4), 589–597. https://doi.org/10.1080/2159676X.2019.1628806

Cameron, H., & Nunkoosing, K. (2012). Lecturer perspectives on dyslexia and dyslexic students within one faculty at one university in England. *Teaching in Higher Education, 17*(3), 341–352. https://doi.org/10.1080/13562517.2011.641002

Data Protection Act (2018). https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted

Dyslexia. (n.d.). British Dyslexia Association. https://www.bdadyslexia.org.uk/dyslexia

European Commission/EACEA/Eurydice. (2022). *Towards equity and inclusion in higher education in Europe. Eurydice report.* Publications Office of the European Union. https://doi.org/10.2797/631280

Equality Act 2010, c39. (2010). https://www.legislation.gov.uk/ukpga/2010/15/contents (Accessed 23 March 2025).

Gerdes, J., Goei, S. L., Huizinga, M., & De Ruyter, D. (2021). Creating an optimal environment for inclusive education: Co-location and transformation in interdisciplinary collaboration. *European Journal of Special Needs Education, 36*(5), 700–714. https://doi.org/10.1080/08856257.2020.1786912

Gibson, D., Kovanovic, V., Ifenthaler, D., Dexter, S., & Feng, S. (2023). Learning theories for artificial intelligence promoting learning processes. British Journal of Educational Technology, 54(5), 1125–1146. https://doi.org/10.1111/bjet.13341

Higher Education Student Statistics: UK, 2021/22. (2023). HESA. https://www.hesa.ac.uk/news/19-01-2023/sb265-higher-education-student-statistics

Hughes, R., & Huby, M. (2012). The construction and interpretation of vignettes in social research. *Social Work and Social Sciences Review, 11*(1), 36–51. https://doi.org/10.1921/swssr.v11i1.428

Knowles, M. S. (1972). Innovations in teaching styles and approaches based upon adult learning. *Journal of Education for Social Work, 8*(2), 32–39. https://doi.org/10.1080/00220612.1972.10671913

Lister, K., Pearson, V. K., Collins, T. D., & Davies, G. J. (2021). Evaluating inclusion in distance learning: A survey of university staff attitudes, practices and training needs. Innovation: The *European Journal of Social Science Research, 34*(3), 321–339. https://doi.org/10.1080/13511610.2020.1828048

Lorenzo-Lledó, A., Lorenzo, G., Lledó, A., & Pérez-Vázquez, E. (2020). Inclusive methodologies from the teaching perspective for improving performance in university students with disabilities. *Journal of Technology and Science Education, 10*(1), 127. https://doi.org/10.3926/jotse.887

Martin, F., Oyarzun, B., & Sadaf, A. (2023). Higher education instructor perception of helpfulness of inclusive and equitable online teaching strategies. *Online Learning, 27*(4). https://doi.org/10.24059/olj.v27i4.4019

Moriña, A. (2017). Inclusive education in higher education: Challenges and opportunities. *European Journal of Special Needs Education, 32*(1), 3–17. https://doi.org/10.1080/08856257.2016.1254964

Oliver, M. (2013). The social model of disability: thirty years on. *Disability & Society, 28*(7), 1024-1026. http://dx.doi.org/10.1080/09687599.2013.818773

O'Shea, S., Lysaght, P., Roberts, J., & Harwood, V. (2016). Shifting the blame in higher education – social inclusion and deficit discourses. *Higher Education Research & Development, 35*(2), 322–336. https://doi.org/10.1080/07294360.2015.1087388

Renold, E. (2002). Using vignettes in qualitative research. *Building Research Capacity, 3*(3–5). https://scholar.google.com/scholar?cluster=8677409159236462882&hl=en&oi=scholarr

Rose, S. J. (2009). *Identifying and teaching children and young people with dyslexia and literacy difficulties*. DCSF Publications.

Sandberg, J., & Dall'Alba, G. (2009). Returning to practice anew: A life-world perspective. *Organization Studies, 30*(12), 1349–1368. https://doi.org/10.1177/0170840609349872

Shaeffer, S. (2019). Inclusive education: A prerequisite for equity and social justice. *Asia Pacific Education Review, 20*(2), 181–192. https://doi.org/10.1007/s12564-019-09598-w

Skvorcovs, A., Titareva, T., & Graurs, I. (2018). The development trends of the main drivers for attracting students into the tertiary education sector in Latvia – Distance learning and internationalization. In 4th international conference on higher education advances (HEAd'18). Universitat Politecnica de Valencia, *Valencia.* https://doi-org.libezproxy.open.ac.uk/10.4995/HEAd18.2018.801

Stentiford, L., & Koutsouris, G. (2021). What are inclusive pedagogies in higher education? A systematic scoping review. *Studies in Higher Education, 46*(11), 2245–2261. https://doi.org/10.1080/03075079.2020.1716322

Sturm, T. (2019). Constructing and addressing differences in inclusive schooling – comparing cases from Germany, Norway and the United States. *International Journal of Inclusive Education, 23*(6), 656–669. https://doi.org/10.1080/13603116.2018.1444105

Svendby, R. (2020). Lecturers' teaching experiences with invisibly disabled students in higher education: connecting and aiming at inclusion. *Scandinavian Journal of Disability Research, 22*(1), 275–284. https://doi.org/10.16993/sjdr.712

Tremblay, D., Turcotte, A., Touati, N., Poder, T., Kilpatrick, K., Bilodeau, K., Roy, M., O Richard, P., Lessard, S. & Giordano E. (2022). Development and use of research vignettes to collect qualitative data from healthcare professionals: a scoping review. *BMJ Open*, 12. http://dx.doi.org/10.1136/bmjopen-2021-057095

Watts, L. (2016). Synchronous and asynchronous communication in distance learning: A review of the literature. *Quarterly Review of Distance Education, 17*(1), 23-32.

Data Availability

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Author's Contributions (CRediT)

MR led the initial qualitative study on which this study was based and was assisted by all authors. SM and MR conducted the literature search and devised the search strategy. All authors helped to pilot and revise the vignettes and interview questions. All authors carried out the data analysis. All authors contributed to the drafting of the manuscript, commented on drafts of the manuscript, and agreed with the decision to submit it for publication. SM led the project administration. All authors have read and agreed to the published version of the manuscript.

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Ethics and consent

This study obtained ethical permission from the Open University (UK) Human Research Ethics Committee (HREC reference number: 2023-0117-2).

Competing interests

The authors have no competing interest to declare.