Embracing Neurodiversity Through Peer-Led Team Learning: Inclusive Practice in Action

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Abstract

The number of students disclosing disabilities or identifying as neurodivergent in UK higher education has increased significantly in recent years, making inclusive pedagogy an institutional priority rather than an optional enhancement. Group learning environments, while pedagogically valuable, can present particular challenges for neurodivergent students due to unpredictability, reliance on social cues, and restrictions on processing time. At Queen Mary University of London, Peer Led Team Learning, PLTL has been strategically embedded across disciplines, with peer leaders receiving training that explicitly addresses neurodiversity and inclusive facilitation. This paper showcases how neuroinclusive practices emerge within PLTL, drawing on reflective case studies from two peer leaders who are themselves neurodivergent. Their accounts highlight the importance of predictable structure, explicit normalisation of error, calibrated pacing, and the strategic use of silence. These strategies reduced barriers for neurodivergent students while simultaneously creating opportunities for hesitant neurotypical students to participate, reframing inclusion as a principle of universal design rather than as "special accommodations" for specific students. The case studies demonstrate that peer leaders can play a pivotal role in shaping inclusive microclimates of learning. Embedding neurodiversity training within PLTL not only supports individual learners but contributes to cultural change across the institution. We argue that PLTL provides a scalable framework for neuroinclusive pedagogy in higher education, where variability is expected, valued, and integrated into the design of learning.

Keywords: Peer-Led Team Learning (PLTL), Neurodiversity, Inclusive Pedagogy, Peer Facilitation, Student Voice

Introduction: Why Neurodiversity in PLTL Matters

The number of students who identify as having either mental health disorders or having additional learning requirements is growing within the Higher Education section and therefore Higher Education must adapt educational provision to ensure all students are included. In the United Kingdom (UK), 19.5% of students are now recorded as having a Special Educational Need or Disability (SEND) in secondary (pre-16) and further (16-18) education (Department for Education, 2025). This inevitably feeds through to post-18 higher education, where the number of students disclosing a disability or specific learning difference has risen by 47% between 2014/15 and 2019/20 (Higher Education Statistics Agency (HESA), 2025; Hubble & Bolton, 2021). Likewise, the number of students declaring a mental health condition has risen fourfold since 2013/14 to one in five students in 2022/23 (Lewis & Stiebahl, 2025). Together, this creates a challenge for higher education institutes, where previous provision only focused on pastoral care. Institutes now need to implement inclusive practice and ensure that future pedagogical approaches are inclusive by design. This is further reinforced by the regulator of Higher Education within the UK which has stipulated that inclusive education is now an expectation of higher education institutes, and not something that should be considered a bonus feature, or optional extra (Office for Students, 2022).

Group learning presents particular challenges that can disproportionately affect neurodiverse students. Unlike traditional lectures where students can prepare using slides and notes provided beforehand, group learning environments are often unpredictable. Students cannot fully anticipate what will happen during group learning sessions because there is no fixed structure or single direction of learning which a student can prepare for in advance. This can be highly stressful for students who rely on the predictability or structure of activities to fully engage with the materials being delivered. Group dynamics can also create challenges as some students may struggle with social cues and expected social norms, and therefore studying within a group setting presents challenges potentially not experienced by neurotypical students (Salvatore et al., 2024). This may increase their anxiety and reduce their ability to participate effectively in class activities, thereby limiting the effectiveness of group learning as a pedagogical approach.

PLTL at Queen Mary University of London began as a response to concerns around student engagement, progression, and outcomes, particularly among underrepresented groups (Clouder et al., 2020). Inspired by a visit to Florida International University (FIU) in 2018, where PLTL had demonstrable success (Hernandez et al., 2012; Alberte et al., 2014), the Queen Mary team identified the model's potential to improve metrics such as student satisfaction, progression, and attainment gaps. With a student profile similar to FIU, Queen

Mary piloted PLTL in 2021/22 across three modules (Howell, 2022), trialing different formats—including online delivery—to understand what would work best in a UK context. The pilot demonstrated that face-to-face, compulsory workshops in small groups (maximum 12 students) were most effective and formed the basis of Queen Mary's PLTL model going forward (Howell, 2022).

Since then, the programme has expanded rapidly across the Schools of Biological and Behavioral Sciences, Physical and Chemical Sciences, and Business and Management. PLTL has been embedded in "high-impact" first- and second-year modules [U.S.: course] where core subject knowledge is critical to progression. The programme is designed strategically to support a range of institutional Key Performance Indicators (KPIs), including increased student satisfaction, reduced attainment gaps, improved progression, and enhanced employability. A longitudinal study measuring student confidence, sense of belonging, and self-efficacy has shown encouraging results, with higher engagement in PLTL correlating with stronger assessment outcomes and improved affective measures. Notably, more than 70 Peer Leaders have been recognized with the SEED (Student Enhanced Engagement and Development) Award. The SEED Award acknowledges and celebrates the valuable contributions students make to the wider educational community at Queen Mary. It is designed not only to recognize individual achievement, but also to encourage students to create, lead, and sustain new opportunities that enhance engagement, inclusivity, and educational development for their peers across the university. The PLTL programme is now supported by an advisory group, a dedicated training hub, and a growing body of published research (Michael et al., 2024).

Central to the programme's success has been its investment in Peer Leader training. Following early feedback, the training has evolved into a co-created, blended programme combining online materials, in-person facilitation practice, and final assessment (Christian et al., 2023). Peer Leaders must complete training and pass an online quiz to be certified (Christian et al., 2023). As of August 2025, 2,211 students have benefited from participating in PLTL at QMUL and 295 students have been trained to act as Peer Leaders. Queen Mary's PLTL programme now exemplifies a values-driven, scalable intervention that supports both academic achievement and student experience (Howell, 2022).

In order to create an inclusive PLTL learning environment, Queen Mary University of London has introduced a session on disability and neurodiversity as part of the aforementioned training. This was important as all Peer Leaders may not have any experience of disability; some may have preconceived prejudices. This could negatively impact the experience of the disabled or neurodivergent learner (Gurbuz et al., 2019). Appropriate training is promoted

both by many activists and widely supported in the literature as an integral part of facilitating inclusivity. The training was initially envisaged to be 10 minutes in length but soon expanded to 30 minutes to include space for discussion. The session was designed and delivered by a staff member involved in PLTL, who themselves is neurodivergent, ensuring authenticity of the narrative. The aim was to provide practical tips for Peer Leaders.

Figure 1. Example of slides taken from the neurodiversity session as part of the wider PLTL training: A) The slide outlines the behaviors of disabled or neurodivergent students in the PLTL session. B) The slide provides practical tips for Peer Leaders including alternative communication methods and actionable strategies to manage student anxiety (2024).

Slides were designed to be inclusive and account for the chances of Peer Leaders also having specific learning difficulties (British Dyslexia Association, 2014). One slide highlighted the presentation of a disabled or neurodivergent student in the PLTL session, prompting discussions on preparedness and body language (Figure 1). Peer Leaders were encouraged not to comment on students' mannerisms or lateness. Guidelines were developed through discussions grounded in compassion and empathy. A second focus area related to the provision of practical tips for Peer Leaders, for example, prompting alternative communication methods such as drawing for visual learners and sensory adaptations (Dwyer et al., 2023; Gillespie-Lynch et al., 2015).

Following this additional training, Peer Leaders noted that they felt more prepared to work with students with disabilities or who identified as neurodivergent. More specifically they were more mindful about giving students space and being patient. In addition, Peer Leaders were more conscious of how their behaviors, actions and tone may impact members in their group, both in a positive and negative way.

Here, we showcase how PLTL can act as a vehicle for inclusive practice in higher education, with a particular focus on neurodiversity. Drawing on case studies from both neurodivergent participants and Peer Leaders, we illustrate how inclusive facilitation strategies can enhance engagement, reduce barriers, and promote a sense of belonging.

Case Studies: Lived Experiences of Inclusive PLTL

This paper is presented as a reflective practice piece rather than an empirical study. We draw on the lived experiences of two neurodivergent Peer Leaders involved in Queen Mary University of London's PLTL programme. Their reflections were collected with consent, for inclusion in this article. From these reflections, we have extracted themes and then used these case studies to illustrate how neuroinclusive practices are enacted in PLTL sessions. They are not intended to represent all neurodivergent experiences, and we recognize that we cannot capture every experience within one paper, but rather, we aim to exemplify strategies that can reduce barriers and foster belonging.

Theme 1 — Psychological safety and predictable structure

Peer Leaders reported that two elements mattered most for neurodivergent students: (i) making it explicitly "safe to be wrong," and (ii) offering gentle structure (clear plans, visible steps, time to process). The following reflections from Christel illustrate these themes.

Adapting facilitation to different ways of learning

I learnt that neurodivergence (ND) comes in many various forms. Although some students show it in a more obvious manner, it's equally as important to consider those whose ND is less obvious in a social-educational setting. I also became more aware that the students of the group might have different ways of learning. This helped me then think of different strategies to make the session more at ease for everyone—for example, giving them a few minutes to read the instructions individually and then reading the instructions or questions out loud for those who prefer a more auditory approach. The training also prepared me to be even more patient than I initially anticipated. After the training, I also felt like I became more mindful of my language, tone and avoided assumptions about how we expect a student should participate.

Normalizing error and using silence to build engagement

Group dynamics and engagement shifted when I adapted my facilitation of sessions towards the idea that it was okay, in fact good, to make a mistake or be wrong. This was the biggest factor I saw holding students back, and it had an even bigger impact on certain ND students who might deal with rejection differently. I tried to emphasize that this was okay; for example, if a student asked a question related to the work and I didn't know the answer, I'd just be honest. Often when I didn't know, I asked them what they thought might be the answer and got them to discuss it together. Engagement was also heavily affected by my use of silence. The more silence I left, the more likely a quieter student would speak. Based on my own experience of having ADHD, when someone asks a question and expects an instant answer, it would cause me to panic. Processing speeds for ND students may be slower, or they may struggle with audio processing. Knowing this was a small group setting, I tried to wait as long as I could for a student to answer—and most of the time, they did. If they didn't, I would prompt them to talk to each other, which sometimes led to discussions further than the question was asking.

Trust, confidence, and the rewards of inclusive practice

I found that having a "plan" set up made it easier for students to engage and made some students feel less anxious, especially if they were shy to share. As an ND student myself, preparing a rough schedule also helped me organize my thoughts, so I hoped it did the same for others. As the sessions continued, the group was more comfortable engaging and sharing their ideas. I got used to everyone having a different response time, and I learnt that silence doesn't always mean disengagement but can give students their own moments to reflect. The most rewarding moments were when quieter students spoke, or when someone who had felt out of place began to contribute more. One of the most meaningful moments was when the student with autism chose to sit next to me and began making comments during the session; it felt like a sign of trust and progress.

Christel's reflections show how predictable scaffolds (session plans, dual-mode instructions) combined with affective signals (patience, openness, normalizing mistakes,

reframing silence) created psychological safety. These strategies supported neurodivergent students' participation and, equally importantly, strengthened her own confidence and adaptability as a Peer Leader. Importantly, Christel reframed silence as cognitive processing rather than disengagement, a stance that aligns with PLTL's emphasis on peers co-constructing understanding rather than performing speed.

Theme 2 — Normalizing error and calibrating pace

Building on the training, Tara centered her facilitation on normalizing error, strategic use of silence, and explicitly modelling "not knowing." This approach was especially important for students who experience rejection sensitivity or slower auditory processing; by slowing down and inviting provisional answers, she reported a visible shift in group climate from caution to collaboration.

Facilitation strategies shaped by diversity in student backgrounds

Being a Peer Leader in a classroom with neurodivergent students provides a unique perspective on PLTL. Training provided leaders with preparation for neurodivergent students, helping equip us and put into context that all PLTL groups would reflect the student body and be extremely diverse. This allowed me to understand that certain techniques would be successful with some students and ineffective with others. I was a Peer Leader for two extremely different modules, a basic biochemistry module and a data handling and statistics module. The groups of students came from a variety of academic backgrounds, with some having little experience with the content. Knowing this helped me understand the exact way I would have to deliver the sessions—with an openness to change and learning from the students in the room with me.

Normalizing error and modelling vulnerability transformed group dynamics

Group dynamics and engagement could be altered by the presence of neurodivergent students. Understanding this, my sessions were held under the assumption that most students in the room might be too anxious to respond to questions or raise their hands. To combat this, I encouraged the idea that it was good for students to make a mistake or say the wrong answer. Often, neurodivergent individuals will struggle with rejection sensitivity or a similar response when they are wrong. To emphasize this, I utilized the concept from the PLTL training: if you do not know the answer to a student's question, be honest and let them know. For students to recognise I was also a student who may not know all the answers helped the group dynamic shift to be exactly what PLTL aims to be - an environment of peers learning together.

It is important to note that not all neurodivergent students are the same. Some may be able to answer questions freely and openly, whereas others struggle with speaking within a group. I felt that fostering openness and collaboration benefited both types of students. Over the course of the sessions, group dynamics began to shift. At the beginning, students would enter the room

and only speak when prompted. Later, they began talking to me first and, eventually, to each other. This felt like a crucial turning point, showing that the students were comfortable in the environment of PLTL.

Slowing the pace created space for reflection and collaboration

Engagement within PLTL sessions heavily relied on my use of silence. Knowing that neurodivergent students may require more time to process questions, providing a pause encouraged them to answer. Silence also helped neurotypical students who were hesitant to respond. As a student with ADHD, I had experienced this myself: when Peer Leaders waited instead of providing answers immediately, I felt more comfortable responding. Of course, this tactic was not always successful, so I would prompt students to turn and talk to each other. This allowed them to develop answers collaboratively, even across very different disciplinary backgrounds. Neurodivergent students often brought alternative ways of thinking, leading to extremely interesting discussions beyond the worksheet. For example, an open-ended question about designing an experiment sparked creative debate among students with different scientific training.

Rewards and challenges of inclusive facilitation

As a Peer Leader, PLTL was incredibly rewarding. As a student who is neurodivergent, being able to help others who felt the same way I did was the best part of the scheme. Watching a "quieter" student open up more towards the end of the sessions was extremely fulfilling. One student once told me "I have no idea what I am doing." By the end of the block, they were confidently answering questions. Just being able to talk about concepts in a judgement-free zone dramatically altered their perspective on the module.

There were moments where I worried I had told students the wrong thing or that some weren't asking for help when they needed to. Being a student who had benefitted greatly from PLTL in my own studies encouraged me to try to be the best leader possible. Looking back, I can see that you don't need to have all the right answers. The point is to help students who benefit from an altered, less overwhelming environment to discuss with their peers and share knowledge together.

Tara's reflections highlight an inclusive logic that generalizes beyond diagnosis: what supports neurodivergent students (longer wait time, honest uncertainty, peer-to-peer sense-making) also benefits neurotypical students anxious about error. Her case underscores PLTL's value as a low-stakes, high-structure setting where disciplinary diversity and different thinking styles become assets rather than barriers.
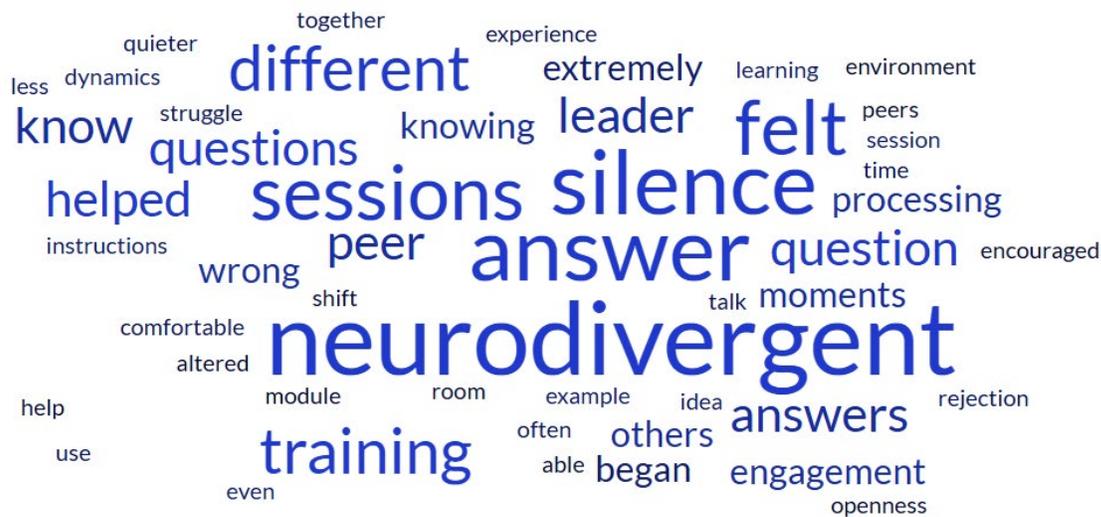
Figure 2. Word cloud generated from Peer Leader case studies.

The word cloud in Figure 2 highlights recurring terms in Peer Leader reflections, with *neurodivergent*, *silence*, *answer*, and *training* emerging as central. The prominence of words such as *felt*, *different*, and *helped* underscores the emotional and relational dimensions of inclusive practice, while *silence* and *answer* reflect facilitation strategies that made space for processing and normalized error.

Taken together, Christel and Tara's accounts highlight how inclusive facilitation strategies, predictable structure, normalizing error, and calibrated pacing, work in practice. Their reflections show that these approaches not only reduce barriers for neurodivergent students but also foster a learning climate in which all students can take risks, process ideas at their own speed, and collaborate across differences. Importantly, neuroinclusive practices are not "special accommodations" but general strategies that benefit entire groups. Techniques such as slowing the pace, creating low-stakes opportunities to share ideas, and reframing mistakes as learning moments supported neurodivergent students while simultaneously enabling more hesitant neurotypical students to participate. What began as adaptations for inclusion became drivers of collaboration, trust, and confidence across the whole group.

From an institutional perspective, this illustrates the value of embedding neurodiversity training and inclusive facilitation into PLTL programmes. Peer Leaders are uniquely positioned to shape the microclimates of learning within their groups, and their lived experience, as both facilitators and, in these cases, neurodivergent students themselves, provides crucial insight into what makes inclusion meaningful. By preparing Peer Leaders to expect diversity in every group, we shift away from a deficit model of "accommodating"

difference towards a universal design ethos that recognizes variability as the norm. PLTL thus provides a scalable framework for embedding neuroinclusive pedagogy, enriching not only individual learning but the collective culture of the classroom. Future work should explore how these insights can inform wider curriculum design and institutional policy, ensuring that inclusion becomes a systemic feature of higher education rather than the responsibility of individual leaders alone.

Acknowledgments

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