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Leading transformative professional learning for inclusion across the teacher education continuum: lessons from online and on-site learning communities

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ABSTRACT

Professional learning (PL) for inclusion is a key policy focus internationally, arising from a growing commitment to the goal of a rights-based approach to education for all. Transformative teacher PL for inclusion is paramount to this goal but it is a complex endeavour, as evidenced in the persistent knowledge-practice gap relating to inclusive practice. Models of collaborative inquiry hold promise for affecting teacher change, yet there is limited research on how such models can support quality teacher PL for inclusion. This qualitative cross-case analysis focuses on two models of collaborative inquiry in different contexts in the Republic of Ireland (RoI): a professional learning community (PLC) for inclusive practice in a primary school and an online learning community (OLC) that supported preservice teacher learning during school placement. Parallel findings across the two case studies demonstrated changes in participants' beliefs, efficacy and practice, arising from collaborative inquiry that was characterised by critical dialogue and public sharing of work. External facilitation of the learning communities supported the creation of a 'safe space' which was paramount to transforming PL contexts. We proffer design principles for sustainable collaborative PL approaches across teacher education contexts that support teachers to navigate the complexity of enacting inclusive practice.

Introduction

There has been a burgeoning emphasis on teacher education for inclusion internationally over the past decade, emanating partly from the identification of an evident knowledge-practice gap (Florian and Camedda 2020, Rose *et al.* 2015, Hick *et al.* 2019). While there are a range of factors that influence teacher competence and confidence for inclusive practice, it is widely accepted that effective professional learning (PL) across the teacher education continuum is paramount. However, it has been highlighted as lacking within initial and continuing teacher education for inclusion, both in the Republic of Ireland (RoI) and globally (Cochran-Smith *et al.* 2015, Rose *et al.* 2015, Hick *et al.* 2019). Although the research base is limited, studies show that professional learning communities (PLCs) for inclusive practice can result in deep teacher learning and

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improved efficacy for inclusion among practising teachers (Pugach and Blanton 2014, Brennan and King 2022). Learning communities have been recommended to address low levels of teacher efficacy for inclusion among newly qualified teachers (NQTs) (Hick *et al.* 2019). Various types of community learning have emerged from situated learning theory that positions learning as a collaborative, contextual and social process (Lave and Wenger 1991). Regardless of the type or name used to describe learning communities, research suggests that those which are formally organised, with a consistent focus on improving teaching and learning, are most likely to bring about school improvement (Hairon *et al.* 2017). Given their potential for improving practice, we propose that learning communities clearly warrant a greater role within teacher education for inclusion more broadly. What is less clear is how they can be successfully enacted within complex contexts across the teacher education continuum. In order to address this research gap, we present a cross-case analysis of two qualitative case studies on learning communities that effectively supported teacher learning for inclusive practice. The first study involved a PLC for inclusive practice with practising teachers in a primary school (Brennan *et al.* 2021), while the second study focused on an online learning community (OLC) with preservice teachers during their school placement experience (Gorman and Hall in press). This paper illustrates how collaborative PL can be developed in a sustainable way to bridge the knowledge-practice gap for inclusion. The research findings proffer design principles for leading and developing learning communities across a range of teacher education contexts to promote equity for all learners.

Teacher education for inclusion: policy context

Inclusive education has become a global concern, reflected in the agenda of transnational agencies, such as the United Nations' Education 2030 Framework for Action, which places a focus on quality education for all (United Nations Educational, Scientific and Cultural Organisation UNESCO 2016). Arising from this global focus, PL for inclusive education has become a common feature in teacher education policy development across Europe (Florian and Camedda 2020). The RoI, like many countries, has responded to the call for inclusive education through the development of legislation and government policies. In particular, the Education Act (Government of Ireland 1998) and Education for Persons with Special Educational Needs Act (Government of Ireland 2004) precipitated the education of most students with special educational needs (SEN) in mainstream classes (National Council for Special Education [NCSE] 2019). In parallel, the number of special classes in mainstream schools significantly expanded, in coexistence with established special schools. However, maintaining separate mainstream and special schools has been highlighted as potentially contravening the United Nations Convention on the Rights of Persons with Disabilities (CRPD) (2006) which was ratified by Ireland in 2018 (NCSE 2019). Consequently, recent policy advice from the NCSE points towards developing a fully inclusive schooling system in the future, although it is acknowledged that would necessitate significant support and resources, not least in terms of initial and continuing teacher education, which have been highlighted as inadequately supporting teachers for inclusive practice (Rose *et al.* 2015, Hick *et al.* 2019).

In the RoI, the Teaching Council is a key driver of teacher education policy, as evidenced in the development of successive policies for initial, induction and continuing teacher education (2016, Teaching Council 2017, 2020). Across these policies, inclusion is noted as a key component of teacher education, however several significant challenges to enhancing teacher education for inclusion remain unresolved. At the pre-service stage, challenges include the lack of expertise for inclusive practice among teacher educators and inconsistent approaches to inclusive practice across and within individual initial teacher education (ITE) programmes (Hick *et al.* 2019). Research also highlights preservice teachers experiencing some conflict in the values of their school-based experience and their university taught content, something which Zeichner (2010, p. 89) notes is 'one of the central problems' in university-based teacher education. Compounding this issue is the lack of formal partnerships between university and schools, noted as a significant challenge to

school placement (Gorman and Furlong 2023). The policy relating to teacher induction, has been criticised as lacking sufficient delineation of inclusive teaching (Hick *et al.* 2019), which potentially exacerbates inconsistencies in our understanding of inclusive practice. In contrast, policy on continuing PL for teachers, which asserts inclusion firmly as a key learning area, offers a definition of inclusion that aligns with UN policy (e.g. UNESCO 2017). While the focus on supporting teacher learning for inclusion across these policies can be viewed as positive, the actuality of how to prepare and support teachers to meet the diversity of learning needs within classrooms presents a greater challenge, with few suggested solutions. Collective consistency across guidelines for inclusion from various policy stakeholders could support the development of a shared understanding of inclusive teaching (Hick *et al.* 2019). In addition, and perhaps more crucially, attention must be paid to research that shows how teachers can be supported to create classrooms that are characterised by inclusive pedagogy, where all learners are included in meaningful learning that avoids marginalisation of difference (Florian 2014).

Developing inclusive pedagogy

It is widely accepted that teacher efficacy for inclusion is paramount to inclusive classrooms yet the lack of such among teachers has been identified as an core obstacle to inclusion (Rose *et al.* 2015). In the RoI, special education teachers (SET), who provide additional support to students with SEN in mainstream schools, and special class teachers in special schools, are not obliged to have a postgraduate qualification in the area of inclusive and special education. While there is a state-funded programme for such teachers, places are limited and have not been extended despite the increase in the number of students with SEN attending mainstream schools and a growth in special classes. Furthermore, PL opportunities for mainstream teachers remain fragmented in this area. While there has been an expansion of modules on inclusive pedagogy within ITE programmes, research evidences a decline in efficacy and knowledge for inclusion among NQTs, despite two modules on inclusive education as part of the four-year undergraduate ITE degree and one module on the postgraduate ITE degree (Hick *et al.* 2019). The embedding of inclusive pedagogy within ITE has shown to support teachers to meet the needs of all learners in mainstream classrooms in Scotland (Spratt and Florian 2015) and has been identified as a recommended approach for ITE programmes in the RoI to support NQTs to create inclusive classrooms (Hick *et al.* 2019). Teachers who successfully enact inclusive pedagogy view differences in learning as essential aspects of human development that must be addressed without stigmatising learners. However, developing teachers as inclusive practitioners presents a challenge in the context of a schooling structure that positions learner differences that are outside of the 'norm' as deficits that need remediation (Florian 2014). This view can perpetuate the idea of challenges in learning as individual failings rather than teaching problems to solve (Mac Ruairc 2016). Teachers must develop positive beliefs and attitudes towards inclusion, efficacy for inclusive practice, and effective approaches to meet the needs of all learners (Florian 2014). In other words, the challenge is to support teachers to develop what they need to know, believe and do in order to implement inclusive practice (Rouse 2008) This support must begin within ITE and continue across the stages of induction and continuing teacher education. Given that teaching and learning is a complex endeavour in the first instance, creating classrooms that effectively include an increasing diversity of learning needs presents an additional layer of complexity. In this context, transformative approaches to PL across the teacher education continuum are essential to support teachers to navigate the complexity of enacting inclusive pedagogy.

Transformative models of PL

Traditional models of PL that focus on knowledge transmission have shown to result in limited teacher change, yet they tend to remain a prominent approach in initial and continuing teacher

education (Kennedy 2014, Cochran-Smith *et al.* 2015). In contrast, models of collaborative professional inquiry, which are characterised by engagement in reflective inquiry to problem-solve identified challenges in teaching and learning, show potential to transform teacher learning (Dogan and Yurtseven 2018, Kennedy 2014). PLCs and OLCs can arguably act as models of collaborative professional inquiry, however their capacity to transform teacher learning is dependent upon how they are designed, developed and led.

Professional learning communities

A universal definition remains elusive, but it is generally agreed that PLCs involve a group of teachers who meet regularly, to engage in collaborative problem-solving in a specific area of teaching and learning, to improve student outcomes. Features deemed as paramount to effective PLCs include: a communal participant vision, sharing of practice, reflective inquiry and a collaborative emphasis on improving student learning (Dogan and Yurtseven 2018, Stoll *et al.* 2006). PLCs that successfully establish these features have shown to act as powerful modes of PL, when aligned with contextual conditions including leadership and organisational support (Stoll *et al.* 2006, Brennan *et al.* 2021, Brennan and King 2022). Lack of such support can create obstacles to PLC development, in addition to external pressures such as education reforms and performance and accountability agendas (Dogan *et al.* 2016). In this context, the development of trust between school leaders and teachers is key to supporting teacher agency or teachers acting as agents of change in their classrooms and schools which is integral to the development of both inclusion and effective PLCs (King 2014, 2016, Pantic and Florian 2015). This is particularly important to overcoming barriers to PLCs, such as lack of time, which has been identified as a perennial challenge to teacher PL in schools (Parker *et al.* 2016) with no clear resolution offered by policy-makers. When teachers have agency, they share responsibility for decision-making that can empower them to 'innovate, develop and learn together' (Harris and M 2010, p. 175) that may lead to creative solutions to addressing challenges. The research on PLCs is predominantly school-based and linked to the benefits of context-specific and on-site PL. The benefits of online PLCs have been reported in the literature, though the evidence base is limited.

Online learning communities

Teacher online learning communities (OLCs) have become increasingly common across the teacher education continuum since 2010 and even more so resulting from the pivot to online PL during the COVID-19 pandemic (Lantz-Andersson *et al.* 2018, Bragg *et al.* 2021). A review of 52 studies on teacher OLCs, which ranged from formally organised synchronous meetings to informal interaction through messaging apps, revealed that they tended to support collegial teacher interaction and information sharing, rather than collaborative professional inquiry (Lantz-Andersson *et al.* 2018). Collegiality has been deemed critical to developing effective collaborative PL (Walton *et al.* 2022). However, in order to transform teacher learning, it must coincide with engagement in critical dialogue that challenges hegemonic assumptions about educational practice (Parker *et al.* 2016, Brennan and King 2022). Interestingly, Lantz-Andersson *et al.* (2018) found that participants who engaged in formally organised OLCs reported feeling a sense of emotional support, which in turn enabled them to share their practice. Public sharing of work has been noted as an important pedagogy for teacher PL, along with critical dialogue within a community of learners (Shulman 2005, Parker *et al.* 2016). Arguably, it can be assumed these pedagogies for teacher PL, and the associated characteristics of effective PLCs, are also important for OLCs. However, there are unique considerations relevant to the context of online PL. While OLCs are a more recent form of PL than PLCs, and more empirical research is warranted to inform practice, there is a body of literature relating to supporting online collaborative

reflection and inquiry within teacher education. The community of inquiry (CoI) is a seminal framework which has been valorised as a model for collaborative and constructivist learning in an online space (Garrison *et al.* 2010). The CoI framework identifies three key elements to support deep learning within a learning community: social presence (facilitation of collaborative, open communication in a safe space), cognitive presence (supporting reflective inquiry through problem posing), and teaching presence (effective design and organisation of the CoI, facilitation of discourse). These are regarded as essential for online educators when designing and facilitating online learning to maximise higher-order learning experiences for students (Garrison *et al.* 2010). The CoI framework aligns with effective teacher education where preservice teachers have opportunities to critically reflect on their teaching, in order to recognise schools as valuable learning sites (Cochran-Smith and Lytle 2009, Korthagen 2013). Thus, OLCs during school placement could be part of the solution to closing the inclusion knowledge-practice gap. Considering the advocacy of increased teacher education for inclusive practice (Rose *et al.* 2015, Florian and Camedda 2020) and identified models of effective PL (Stoll *et al.* 2006, Kennedy 2014), this paper offers a timely illustration of how learning communities can support transformative teacher learning for inclusion.

Methodological approach

This paper adopted a qualitative cross-case analysis approach (Stake 2006) to identify a framework to support the development of learning communities for inclusion across complex contexts. The first case study focuses on a PLC for inclusive practice in a primary school involving ten participants (Table 1). The PLC, facilitated by one of the researchers, took place over a six-month period. Interview and observation findings demonstrated improved attitudes, efficacy, and individual and collaborative practice for inclusion among participant teachers (Brennan *et al.* 2021). Two years later, a follow-up study was conducted to explore if and how PL for inclusive practice was sustained. Findings from semi-structured interviews with nine of the original participants, along with five classroom observations, indicated sustained changes in teachers' individual and collaborative practices, evidencing that PLCs can transform teacher learning for inclusion (Brennan and King 2022). The second study explores an online learning community (OLC) to support student teacher learning in the context of school placement. The study included 120 preservice teachers who engaged in six weekly synchronous OLC meetings, which were facilitated by the researcher and three teacher educators. Student teacher learning for inclusive practice, among other areas, was supported by evidence-based approaches including student-led discourse, self-regulated learning and reflection and enquiry. Along with observation data, interviews with 12 participants (Table 2) revealed that the OLC provided opportunities for dialogic reflection, which enabled preservice teachers to identify challenges and complexities pertaining to their own practice, resulting in the generation of knowledge of practice.

The data set included interviews and observation data from the two initial studies which were read as a whole, with the goal of identifying key themes that were evident in both the OLC and PLC. Comparative differences between the OLC and PLC were also identified. The use of a qualitative data analysis package, NVivo 12, aided data organisation and structured exploration of the data. A thematic analysis approach was used which involved identification of patterns and subsequent themes within the data (Braun and Clarke 2012). First-level coding involved labelling groups of words (e.g. confidence, support, resources) and following this second-level coding reduced the initial codes into a fewer number of themes (such as: seeking support, collaboration, affirmative feedback, professional relationship) (Miles and Huberman 1994). Once the coding was completed, broader themes and sub-themes were identified which were refined into final themes (Braun and Clarke 2012).

Findings and discussion

The data findings illuminated parallel themes across the two studies which contributed to teacher learning for inclusion, namely: critical dialogue, public sharing of work and leadership and facilitation. The pedagogies of critical dialogue and public sharing of work in both the PLC and OLC, supported by effective leadership and facilitation, resulted in meaningful PL for inclusion.

Critical dialogue

Critical dialogue encompasses reflection and inquiry but also has deep and implicit structures that go beneath the surface to analyse teaching and learning, in order to problem-solve and to construct new knowledge (Parker *et al*. 2016). The findings from the PLC and OLC demonstrated that critical dialogue supported the participants to change their beliefs and practice in relation to inclusion. In the PLC, participants were supported to engage in critical dialogue about their views on the strengths and concerns relating to inclusive practice and subsequent collaborative problem-solving of challenges in their classrooms. Diane's comment below is reflective of the shift in PLC participants' perspectives on inclusion as a result of engaging the PLC:

> I was finding it really difficult to include him as part of the class in a way that was meaningful and that was benefitting his learning as well, I found it really hard. I think [the PLC] just distinguished for me between differentiation and inclusive differentiation.

Diane was working with a learner who had complex additional learning needs and had experienced challenges in her practice. She demonstrated a shift in her beliefs and practice to consider inclusion from the outset of her planning and teaching, rather than an 'add-on' to her lessons. This was demonstrated during observation of her teaching where she planned the lesson to offer a choice of learning activities to all learners and provided individual support as needed. Similarly, Emily noted how her perspective on inclusive practice had changed as a result of engaging in the PLC: '*My idea of differentiation was doing an easier version or less questions or a worksheet of his own and that really makes him different from everyone else*'. She critically reflected on how she could include a learner with additional needs by extending her use of differentiation to offer choice in the classroom. This involved offering a range of options for how learners demonstrated their learning which avoided stigmatisation of difference. Emily noted that by introducing new inclusive approaches, her teaching was 'more interesting and varied and it keeps [the learners] more interested' which in turn created a more inclusive learning environment.

While supporting preservice teachers to enact inclusive practice was not at the forefront of the OLC, it appeared as the most dominant challenge that they encountered in their practice. For example, Avril commented that '*initially [I] did not really think about [inclusion] during her preparation week, but in week one [realised] that it was important as there were lots of ranges and abilities*'. Similarly, Ken's comment about creating an inclusive classroom is reflective of the participant group '*I thought as I prepared for placement, each kid has a different ability, across the twelve subjects of the curriculum, and how will I be able to recognise this*'. Initially, preservice teachers were sharing experiences of overt approaches to differentiation that could potentially mark learners as different such as the use of differentiated worksheets. This prompted the tutors to lead critical dialogue on the inclusive nature of traditional differentiation approaches as illustrated by Jane's comment:

> We began the discussion about planning challenging activities for higher achievers and also differentiated learning outcomes for lower ability students. The tutor prompted us to think how we could approach this differently, rather than treat two groups differently.

Critical dialogue supported the preservice teachers to change their perceptions about inclusive practice. Observations from the OLC sessions illustrated that students initially sought immediate solutions to address differentiation, but the affordances of critical dialogue challenged their

thinking. In the interviews, Mike remarked: *'the online session taught me that inclusion or differentiation is not a box that you can tick, it is something you must always work on, and I came away . . . . knowing that'*. Similarly, Fiona felt that *'she now thinks about differentiation [as more than] just asking different questions or giving different worksheets, but giving choice through learning menus, and how collaborative and cooperative learning can be used, and it is less labelling'*.

The parallel findings from the PLC and OLC illustrate that critical dialogue was an effective pedagogy to unpack the participants' conceptions of inclusive practice and differentiation, which aligns with research that highlights discursive strategies as key to teachers taking a critical approach to difference and hegemonic perceptions of ability (Mac Ruairc 2016). It also reflects the principle of dialogue and inquiry noted as paramount to leadership for professional learning for educational equity, where dialogue is facilitated in a supportive way that fosters equity, affirmation and enquiry among participants (Poekert *et al.* 2020).

Public sharing of work

The findings in this study show that the PLC and OLC provided safe and supportive spaces where participants felt empowered to share their practice. This in turn enhanced teacher efficacy for inclusive practice. In relation to the PLC, Hilary noted: *'Just by chatting about what you're doing, it definitely affirms you and gives you confidence in what you're doing and motivates you to keep doing it'*. Hilary's comment aligns with research on how public sharing of work can result in affirmation and improved self-confidence (Parker *et al.* 2016). This finding was evidenced across the group and observed within the PLC meetings:

> . . . . there definitely was this environment of, well you can say anything, d'you know, and if you messed up, you messed up, and you just said it, and there was always someone to kind of go 'no actually I thought you did quite well in this' d'you know, this area, or this aspect of it . . . .it was kind of reassuring (Kieran)

The sharing of work in the PLC resulted in teachers implementing new practices, such as offering choice to learners, as outlined by Niamh:

> I've used so much of that [ideas for differentiation through choice] this year and I know I will going forward as well. It's nice to be introduced to new ideas and new ways of thinking as well.

When teachers shared what has worked well in their own classrooms, they gained affirmation in the PLC and were encouraged to try new practices in their own classrooms.

In comparison to the PLC, certain preservice teachers were initially hesitant about sharing their practice in the OLC, demonstrating the different levels of readiness and experience between practising and preservice teachers. A majority of participants (8 out of 12), such as Ken, felt apprehensive as *'it [the OLC] was an experience I had not encountered before, and I was a little bit scared'*. Similarly, Fiona remarked that she was initially feeling reluctant to share challenges or problems of practice with her peers:

> Many of us I think, like myself, weren't very open from the outset about opening up about any difficulties that you were having. You have an idea that everybody else is getting on great, and if you're the only one that's having trouble [laugh], you're the only one.

This was echoed by Ross who felt that *'you try to paint a good picture of yourself to other students . . . you never kind of want other people to know that I am a weak person and show my faults'*. The OLC tutors placed emphasis on affirming and encouraging the preservice teachers to share with their peers. The tutors also engaged in modelling examples of a problem of practice in their day-to-day roles. Jane commended this strategy: *'it was nice for us as students to hear that because you are like it happens to even experienced teachers'*. As the OLC progressed, the preservice teachers became more at ease and in sharing experiences and in seeking help: *'before this I would never want to talk about*

difficulties or challenges but I did see the reward in being honest and seeking advice and sharing advice and taking on board the advice of others' (Mike). The participants were enabled to share problems of practice due to the OLC being a '*safe space*' (Lisa). This enabled students to gain knowledge of practice, as reflected in Fiona's comment:

> Students were giving you feedback. Tutors were giving you feedback and you were getting ideas and you were able to share your own ideas and I felt more comfortable in the online session, than writing a lesson evaluation.

Thus, the OLC provided an opportunity for students to not only address challenges and issues, but also to receive affirmation, encouragement, and motivation to incorporate new ideas and address existing challenges or problems of their practice. The cross-case observation and interview findings on public sharing of work indicate the value of creating safe and supportive environments in collaborative PL, where teachers can meaningfully inquire into their practice (Parker *et al.* 2016). Cultivating a safe space allowed participants to identify and problem-solve the challenges and complexities pertaining to their own practice which in turn enhanced their efficacy for inclusive practice.

Leadership and facilitation

The PLC participants viewed the external facilitation as important to the success of the PLC, aligning with research that advocates drawing on external expertise in developing PL in schools (Stoll *et al.* 2006, Walton *et al.* 2022). Kieran discussed how the PLC meetings may not have continued without an external facilitator:

> There was a level of accountability, not that we felt any pressure, but it was nice to know that Aoife's coming in, we're having this meeting because if it was done internally it would be put off.

The external expertise in the facilitation of the PLC was crucial to designing effective PL experiences for the teachers through intentional use of pedagogies including critical dialogue and public sharing of work. Furthermore, teacher agency was fostered in the PLC which proved instrumental in supporting meaningful learning among the teachers. Hilary's comment reflects the participants' feelings about how the PLC was facilitated:

> I suppose there was a lot more responsibility and respect given to the teachers because it wasn't like [the facilitator] knows everything and you're going to tell us what to do. It was taking our ideas and extending and building on them and a lot of the time when you go to workshops it's done in the old traditional style, it's a bit ironic. But I thought this [the PLC] was brilliant, really, really good.

This finding is indicative of how most of the participants (7 out of 8) felt supported in taking ownership over their practice and in taking risks in implementing new practices. It was evident across the observation of practice, for example in Niamh's classroom where she took the idea of a learning menu and created a choice of activities to meet the needs of all learners in the class. She then shared evidence of the learning in the PLC:

> You'd always mention that . . . that's it's okay to edit it or change it in any way that you felt worked better for your class. It wasn't very strict; I think we had a lot of free reign (Niamh)

In the OLC, preservice teachers remarked that the presence and actions of the tutors played a vital role in creating the safe space which reflect the key considerations for the design and facilitation of the OLC. The recruitment of two teachers, to act as online tutors, was adopted to make visible the dialectic of preservice teachers, cooperating teachers and a higher education institute (HEI)-based teacher educator work in tandem, or as described by Mike as a place for '*getting views; views of students, of teachers who are currently out there and views of a lecturer who knows the course*'. All student teacher participants valued this approach as indicated by Avril who felt that the OLC involved '*real teachers who work in real classrooms and are very much in tune with what is going on in modern day classrooms*'. In relation to the HEI-based teacher educator, Ross described this input

as *'helping you to bring the experience back to your coursework, a nudge to go back to what you have learned'*. While the preservice teachers valued this input, advanced preparation for the OLC was essential as indicate by Caoimhe, one of the cooperating teachers:

> I was initially apprehensive about this, given that I had no previous experience of this [supporting inclusive practice]' but the professional learning meetings allowed us to think how best we can support the [preservice teachers] and we were all on the same page.

Jenny, also a cooperating teacher, noted that she had been a mentor in her school, and while she did receive prior *'professional development to support NQTs [newly qualified teachers] with differentiation . . . . this was 'something new [the OLC] and it would work really well with NQTs'*.

The leadership of the learning communities by external facilitators supported the creation of a 'safe space' in which effective pedagogies were carefully used to enhance teacher learning. When problems of practice arose, the external facilitators acted as more knowledgeable others from a *guide on the side* rather than a *sage on the stage* approach which has shown to support critical reflection (Balfe and Ní Bhroin 2022). This nuanced facilitation of collaborative PL was paramount to effective teacher learning.

Implications

The cross-case findings from the PLC and the OLC evidenced sustainable collaborative enquiry at the core of the PL that occurred within both communities. It illustrates the potential of online and face-to-face learning communities to support transformative teacher learning for inclusion across the continuum of teacher education. Engagement in critical dialogue about participants' practice was crucial to fostering collaborative enquiry. Both learning communities made visible teachers enacting 'inquiry as stance', conditioned by participants engaging in dialogue with the intent to transform teaching and learning within their professional contexts (Cochran-Smith and Lytle 2009). This required careful leadership and facilitation in order to create a safe and supportive learning environment where participants could reflect on their own authentic learning contexts and existing inclusive practice in order to adopt new approaches to teaching and learning for all. In addition, critical dialogue afforded an opportunity for the acquisition of knowledge through interaction and dialogue. Such knowledge reflected 'knowledge of practice' (Cochran-Smith and Lytle 2009), illustrated in participants reflecting on practice, raising questions pertaining to their practice, and sharing ideas through dialogic enquiry (Cochran-Smith and Demers 2010). The critical dialogue in the two learning communities reflected *surface*, *deep* and *implicit structures* (Shulman 2005, Parker *et al*. 2016). With respect to the *surface structure*, this occurred through dialogue around the pedagogies employed in participants' day-to-day practices to support inclusion. The *deep structure* allowed the participants to specifically reflect on their existing practices within their own school contexts e.g. sharing examples of how they used differentiated learning activities. *Implicit structure* involved the participants challenging their existing beliefs through reflecting on their existing practice. With the support of the tutors, how all learners were catered for in participants' classrooms was deconstructed and problematised e.g. discussion centred around the categorisation of existing practice as exclusionary or inclusionary. This enabled participants to alter their views on inclusive practices. However, careful considerations had to be taken to position the critical dialogue within the *implicit structure*. Facilitation and design were paramount in this regard.

Public sharing of work was also fundamental to supporting collaborative learning within both learning communities. Public sharing of work challenges the reluctance of teachers to 'open their class doors' (Fullan 2007, p. 36). The learning communities dismantled the boundaries of sharing practice, as the participants were encouraged to share their practices with their peers. A notable finding in this research was that the emphasis placed on public sharing or work was initially met with reluctance by the preservice teachers within the OLC, illustrating that the 'privacy norms'

appear to be prevalent at a very early stage (Fullan 2007). This may be due in part to the preservice teachers' apprenticeship of observation of viewing teaching as a solo profession (Sugrue 1997). Regarding public sharing of work, *deep* and *implicit structure*s were observed. The *deep structure* was characterised by participants moving beyond merely sharing practice (*surface structure*), to enacting new approaches acquired from their knowledge of practice within the learning communities. The frequency of the sessions enabled participants to adopt and employ new inclusive practices, which would be further revisited in subsequent sessions. At an *implicit structure*, participants were empowered to share their practice through affirmation and encouragement, recognising that public sharing of work was important for their own self affirmation. The isolated nature of teaching can be compounded when there is no opportunity to collaborate with colleagues and when opportunities to share and reflect on practice are absent, insidious self-doubts can arise. Both learning communities provided vivid examples of how participants felt empowered as a result of sharing practice, felt encouraged and motivated to enact new inclusive practices, and they valued the opportunity to share with their peers.

This study endorses the findings that external expertise in learning communities has shown to be important to challenge hegemonic thinking about inclusion (Walton *et al.* 2022). Leadership was critically important to ensure that collaborative enquiry was facilitated through critical dialogue and public sharing of work. In terms of leading the PL within both learning communities, effective design and facilitation of the learning communities was crucial. From a design perspective, leadership required a sustainable vision that would address a significant complexity in teaching and learning, specifically enacting inclusive practice. Participants needed to recognise the value of engagement in the learning communities, alongside the importance of allowing them to make connections to their own sites of practice. Questions and tasks were carefully planned to ensure that such connections could be made. In addition, the strategies employed by the facilitators were important. PL for the facilitators was key, in terms of knowledge of evidence-based inclusive practices, alongside knowledge of effective facilitation of collaborative enquiry through critical dialogue and public sharing of work. The facilitators ensured from the outset that a 'safe space' was supported by communicating that the learning community meetings were equitable, shared spaces for supportive collaboration. Facilitators maintained positive and collegial atmospheres where all members' voices were included and valued refelcting the leadership for PL principle of normalising inclusion and shared leadership (Poekert *et al.* 2020). From the perspective of the participants who engaged in the learning communities, they were empowered to be agentic in their own professional contexts. In the PLC context this was further enhanced by support from school leadership which is paramount to inclusive schools (Ainscow and Sandill 2010).

The research findings inform design principles to support sustainable learning communities for inclusive practice (Table 1). Characteristics of effective learning communities identified by previous research remain important, such as supporting individual and group learning, voluntary membership and a shared learning focus (Stoll *et al.* 2006). This study identifies additional design features.

Table 1. Participant profiles study 1 (PLC).

Teacher (Pseudonym)	Teaching Experience Initial Study	Teaching Role Initial Study	Teaching Role Follow-up study
Diane	4–7	Junior Infants (4/5 yrs old)	6th Class (12 yrs)
Hilary	4–7	Junior Infants	4th Class
Kieran	8–10	Senior Infants (5/6 yrs)	Junior Infants
Rebecca	1–3	Senior Infants	Autism Class
Niall	1–3	1st Class (7 yrs)	Autism Class
Niamh	4–7	3rd Class (9 yrs)	Special Ed. Teacher
Anne	4–7	3rd Class	Non participation
Emily	1–3	4th Class (10 yrs)	1st Class
Deputy P	11+	Administrative	Administrative
Principal	11+	Administrative	Administrative

Table 2. Participant profiles study 2 (OLC).

Student Teacher (Pseudonym)	Age Profile	School/Class Context
Andy	20–29	Multigrade
Avril	20–29	Singlegrade
Fiona	20–29	Singlegrade
Grace	30–39	Singlegrade
Jane	20–29	Singlegrade
Ken	40–49	Multigrade
Lisa	30–39	Singlegrade
Mary	20–29	Multigrade
Mike	20–29	Singlegrade
Nick	20–29	Singlegrade
Paul	40–49	Multigrade
Ross	20–29	Multigrade

Table 3. Design principles: learning communities for inclusive practice.

Shared focus for teacher learning
Group, as well as individual, learning is promoted
Inclusive and voluntary membership
Effective pedagogies: *critical dialogue, public sharing of work*
Supporting factors: *Leadership for Inclusion, External Support, Cultivating a Safe and Supportive Space, Teacher Agency*

The effective pedagogies of critical dialogue and public sharing of work are paramount to collaborative problem-solving and teacher learning. Furthermore, external expertise created safe and supportive spaces that fostered teacher agency which proved invaluable to supporting teachers to collaboratively problem-solving teaching dilemmas. Leadership for inclusion is also identified as it pertains to inclusive leadership from school leaders and from external facilitation of learning communities that fosters a shared responsibility for inclusion and equity for all.

Conclusion

This cross case analysis answers the call for actionable guidance on leading sustainable models for collaborative PL. Firstly, it demonstrates how learning communities can be effectively led and developed to support preservice and practicing teachers to create inclusive classrooms. The participants demonstrated a shift in their views of inclusion, for example from the perspective of differentiation approaches for 'some' to 'all' learners (Florian 2014). They reported an increase in efficacy to include all learners in the classroom as a result of affirmation within the learning communities and collaborative problem-solving problems of practice. In turn, participants were empowered to implement new inclusive practices that addressed individual differences without stigmatisation. The transformative power of the learning communities in this study shows that the gap between knowledge and practice for inclusion can be significantly reconciled when the collaborative PL model is carefully planned and facilitated. In this regard, the design principles hold promise to support learning communities for inclusive practice across the continuum of teacher education contexts. Additionally, they align with principles of leadership for PL towards educational equity identified by Poekert *et al.* (2020), in particular dialogue and enquiry and normalisation of inclusion and shared leadership. Secondly, the external support was critical to the success of the learning communities, emphasising the value of university–school partnerships in leading PL for inclusion and in laying the foundation for teachers to lead it within their own schools. This model of PL is job-embedded and context-specific which is central to meaningful teacher learning (Hunzicker 2012). Thirdly, this research illustrates how learning communities can affect change over relatively short periods of time, despite the complexities of challenges in school contexts, when teachers are afforded agency and opportunities for collaborative enquiry in a safe

environment. This paper strengthens the research on how learning communities can transform PL for inclusion across the teacher education continuum. We proffer design principles for learning communities (Table 3) that can empower teachers to promote equity for all learners. We call for further empirical studies to explore how these design principles can support PL for inclusive practice across varying teacher education contexts.

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