Literacy for equitable interprofessional learning: implementation protocol for an online community of practice for Irish teachers and speech and language therapists

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METHOD

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ABSTRACT

Communities of Practice (CoPs) are often used to enhance professional learning and support capacity for change. While they are increasingly popular in both health and education, more needs to be done to understand how the CoPs can be used to support equitable, interprofessional collaboration between these allied disciplines. This paper presents a novel protocol that describes the implementation and evaluation procedures of an online CoP for primary school teachers and speech and language therapists (SLTs) that focuses on effective literacy instruction. Literacy is an equitable domain of shared practice not previously explored in the Irish context. This protocol leveraged two distinct yet converging Implementation Science frameworks to inform the design and evaluation of the proposed interprofessional CoP. These frameworks provide a comprehensive blueprint for designing, executing and evaluating both the process and outcomes of the CoP.

Introduction

Interprofessional collaboration between health and education professionals is increasingly recognised as essential to inclusive education (European Agency for Special Needs and Inclusive Education 2022). It is defined as an active and ongoing partnership *between* professionals from diverse backgrounds (Schot, Tummers, and Noordegraaf 2020). Originally developed for professionals within health care, key principles of interprofessional collaboration, such as good communication and clear values, still have obvious relevance for the collaboration of professionals across disciplines (e.g. Speech and Language Therapists (SLTs) and teachers) (Armstrong et al. 2023; Birch et al. 2023; Mathers et al. 2024). In a systematic review of interprofessional practice, Nancarrow et al. (2013) also identified 'equality of relationships' as one of its key tenets, where non-hierarchical and democratic approaches to knowledge sharing are foundational to

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the development of meaningful interprofessional CoPs. This is a particularly relevant characteristic to consider when considering interprofessional collaboration within the Irish education and health systems.

The limited literature available on interprofessional collaboration between SLTs and teachers within the Irish context has generally been initiated by SLTs (Quigley and Smith 2022), and typically focuses on the SLTs developing the teachers' capacity to address the speech, language and communication needs in the classroom (Lynch et al. 2020; Quigley and Smith 2022). Despite close and interdependent links between language and literacy (Snow 2021), literacy is astonishingly absent in all Irish research on interprofessional work between teachers and SLTs. Leveraging the complementary skills of each profession would likely enhance children's learning across both domains, but particularly in literacy which is a fundamental aspect to both professions' work and essential for all learners.

In this paper we report on the initial development and proposed implementation and evaluation of an innovative online interprofessional community of practice (CoP) for primary school teachers and SLTs focused on literacy and aimed at improving literacy outcomes for the students and clients of the CoP members. Such an approach to a CoP offers a novel method for advancing *equitable* collaboration between teachers and SLTs in Ireland. This paper begins by outlining the common challenges of interprofessional collaboration between SLTs and teachers as reported in the international literature before considering the Irish context. It then explores the potential of literacy as a topic to foster equitable discussions within CoPs. The use of Implementation Science frameworks to guide the development, implementation, and evaluation of CoPs is discussed, followed by a description of the authors' planned application of these frameworks for an online interprofessional CoP. The paper concludes by highlighting the value of this project for advancing interprofessional collaboration.

Challenges of equitable interprofessional collaboration between teachers and speech and language therapists: international literature

Originally described as what occurs between professionals within single disciplines (e.g. health; World Health Organisation, 2010), ideas around interprofessional collaboration have broadened to capture any collaborative practice when those from different professional backgrounds (e.g. health, education) work together to support high quality outcomes. Efforts to strengthen collaboration between teachers and speech and language therapists (SLTs) have been growing, both globally (e.g. Australia; Loveall et al. 2022; Mathers et al. 2024; Stephenson, Serry, and Snow 2023 in the UK) and within Ireland (Quigley and Smith 2022). While evidence is limited, providing interventions in real-world settings or a combination of classroom and small group environments is being more commonly recommended. This approach is based on the idea that language skills are more likely to transfer to new situations when taught in the context where they will be applied (Archibald, 2017). Consequently, implementing language interventions in classrooms necessitates collaboration between SLTs and teachers.

The scope for interprofessional collaboration between teachers and SLTs in relation to addressing school-age *literacy* instruction and support has been identified by professional associations internationally (American Speech-Language-Hearing Association [ASHA] 2010; 2016; New Zealand Speech-Language Therapists' Association 2012; Speech-Language

& Audiology Canada 2016). Consequently, SLTs worldwide are beginning to be more intentionally involved in the field of literacy instruction and having a clear role in supporting literacy outcomes for learners at all levels of support, from the individualised level all the way through to targeted whole-school approaches (Gillon 2023). For example, in a 2022 ASHA national survey of school-based SLTs, 55% of respondents indicated their involvement in supporting Multi-Tier-Support-System (MTSS) literacy activities (Gillon 2023). In Australia, SLTs now have access to dedicated clinical guidelines for working specifically in the area of childhood and adolescent literacy (Speech Pathology Australia 2021).

International literature highlights the value of teacher-SLT partnerships for literacy instruction and provides insights into how these collaborations can be implemented in practice. Intervention studies conducted in the US and Australia, where school-based SLT service delivery is more firmly established, consistently demonstrate that integrating SLT and teacher expertise in classroom instruction contributes to positive outcomes for children's language and literacy development (e.g. Carson, Gillon, and Boustead 2013; McKechnie et al. 2024; Throneburg et al. 2000). For example, Carson, Gillon, and Boustead (2013) found that collaborative approaches to classroom-based oral language instruction can support improvements in reading ability for young children aged 5–6 years. Similarly, McKechnie et al. (2024) employed a quasi-experimental pretest/posttest design to assess the impact of interprofessional delivery of a curriculum supplement for oral language and emergent literacy. Their study revealed improvements in children's print knowledge and narrative skills, alongside a significant increase in educators' use of oral language and emergent literacy promoting strategies in their daily interactions with their students. These findings underscore the benefits of interprofessional collaboration for both student outcomes and professional learning. Another study from Australia on interprofessional education further supports these benefits. Wilson et al. (2016) examined the impact of integrating phonological awareness instruction with speech production practice within shared professional placements for preservice teachers and SLTs. The study found that children at risk of literacy delays who received classroom-based co-instruction from preservice SLT-teacher pairs made significant progress toward their target goals. These findings provide further evidence that interprofessional collaboration and co-instruction enhance both speech and early literacy outcomes for children.

However, achieving effective collaboration remains challenging in practice. For example, Armstrong et al.'s (2023) systematic review identified the inconsistent presence of SLTs in schools as a significant barrier to teacher-SLT interprofessional collaboration. These professionals often assert that they do not have sufficient time together to develop effective partnerships. Quigley and Smith (2022) identify additional challenges to this interprofessional collaboration beyond mere contact. They suggest that differing epistemological traditions may hinder the development of cohesive interprofessional practices. While SLT education is rooted in the medical model, teacher education is more aligned with social constructivism. These differences in training and theoretical orientation may create misunderstandings or gaps in shared knowledge, making it more difficult for teachers and SLTs to develop truly integrated approaches to supporting children's language and literacy development.

Effective collaboration requires collaborators to perceive each other as having equal status and influence in decision-making (Friend and Cook 2003). Teachers possess deep insights into educational practices, student engagement, and classroom

management – skills that are essential for fostering the environmental conditions necessary for much of the language interventions advocated by SLTs (Concannon 2022; Poll and Hoffman 2024). Consequently, an effective partnership requires not only capacity-building for teachers but also opportunities for SLTs to learn from teachers' unique perspectives on student learning and development when in larger classrooms. Highlighting this two-way knowledge exchange shifts the dynamic from one-sided support to a true partnership, where both fields contribute equally, leading to a more inclusive and effective approach to supporting students.

Challenges of equitable interprofessional collaboration between teachers and speech and language therapists: Irish context

While international efforts to strengthen collaboration between teachers and SLTs have grown (Mathers et al. 2024; McCartney 2024; Quigley and Smith 2022), there is limited research within the Irish context on how such partnerships can be developed in an *equitable* and effective manner. For example, a large part of SLTs' collaboration with teachers in Ireland is focused on capacity-building of teachers (e.g. Concannon 2022; Murphy et al. 2017; Quigley and Smith 2022). This poses a challenge for equitable collaboration between the two professions as the knowledge sharing that is fundamental to effective interprofessional collaboration occurs only in one direction.

In Ireland, apart from language classes that cater for a minority of children with Developmental Language Disorder (DLD), the majority of students who require SLT services access this provision through the public health system or private speech and language therapy services situated outside of school settings. Consequently, SLTs often have limited exposure to children's classroom and school lives (Gallagher et al. 2023a, 2023b). Nevertheless, interprofessional partnerships are being more formally explored and established in Ireland. This is seen for example in the establishment of a pilot Therapy Demonstration Project in schools and subsequent School Inclusion Model, both of which ultimately aimed at advancing interprofessional collaboration by 'bringing' therapy provision to schools (Lynch et al. 2020). These initiatives were established to develop and test models for the delivery of in-school and pre-school therapy service provision in Ireland. These projects aimed to develop more robust and consistent linkages between educational and therapy supports in line with a tiered model of intervention and support (e.g. National Education Psychological Service [NEPS], 2007). The evaluations of this model to date showed that, contrary to the foundations of equitable interprofessional practice, most of SLTs' work in schools continued to be 'consultation based' where SLT provides 'expert' advice to teachers on how to support learners with speech, language and communication difficulties (Lynch et al. 2020).

Despite the now well established links between language and literacy difficulties (Adlof and Hogan 2018; Botting, Simkin, and Conti-Ramsden 2006; Catts et al. 2001), anecdotal evidence suggests that Irish speech and language therapists (SLTs) tend to focus on developing children' oral language skills, while Irish teachers tend to focus on written language skills such as reading and writing. This fragmented approach to supporting children with literacy difficulties is highly illogical given the complementary skills each profession has in supporting children's learning in this area. International research shows that SLTs could offer guidance on the explicit, sequential and systematic introduction of the

range of linguistic concepts that underlie literacy development for both classroom and intervention-based instruction (Wilson, McNeill, and Gillon 2016). Meanwhile, teachers could offer the context in which such guidance would be most beneficial (Bauer et al. 2010). Recognising this seemingly obvious, yet often neglected synergy between the two professions, we argue that literacy offers an equitable domain for a shared practice between Irish teachers and SLTs.

In Ireland, the 'science of reading' is gaining recognition and many teachers are honing their teaching approaches, for example by introducing more explicit phonemic, morphological and syntactic awareness teaching in line with the integrated language, reading and writing approach to literacy instruction that underlies structured linguistic literacy (Buckingham 2024; Horgan 2022). As most teachers' linguistic knowledge and skills in these domains have been reported to need support (Joshi et al. 2009; Moats 2014), the contribution of SLTs in the correct implementation of evidence-based instructional approaches in Ireland could be significant. As experts in teaching of reading and writing, and experts of the curriculum, teachers would also offer much to SLTs in ensuring that their work extends beyond a learner's oral skills into written language.

Community of practice (CoPs) as a method to advance interprofessional collaboration

Communities of practice (CoP) are 'groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis' (Wenger et al., 2022, p.4). They support professional practice change and are thus an especially effective structure for professional learning. In education, such collaborative professional inquiry models are considered among the most effective tools for professional learning (Kennedy 2014). CoPs are known to be supportive for most professionals (Stoll et al. 2006) and have been found to be transformative in both education (Brennan and King 2022) and health (Shaw et al. 2022). CoPs are popular in Irish educational (Brennan and King 2022; Quigley and Smith 2022) and health research (Shaw et al. 2022) and are sometimes classified as professional learning networks or learning communities. We use the term CoP simultaneously with these terms (Kennedy 2014).

In Ireland, Quigley and Smith (2022) documented the development of an interprofessional practice (IPP) inquiry between three teachers and one SLT who met weekly over the course of the school year to collaboratively look at how classroom practices might be changed to support language enrichment. They found that such interprofessional collaborative inquiry can be effective to influence classroom practice, but it needs a dedicated time and space and explicit facilitation to enable genuine sharing of power, ideas, ways of knowing, and perspectives. Concannon (2022) has also documented the experiences of collaboration between teachers and SLTs in Irish schools. Her research strongly recommends the wider establishment of CoPs to support interdisciplinary collaboration in Ireland. However, it does not detail the specific processes that should be undertaken to establish and implement effective CoPs. Furthermore, to our knowledge, literacy has not been proposed as a shared domain for an interprofessional CoP in Ireland. We aim to address these research gaps by documenting the implementation processes of an interprofessional CoP involving teachers and SLTs focused on the topic of literacy.

Methods

Our protocol for the implementation and evaluation of this CoP has been informed by conceptual frameworks from Implementation Science. As a discipline, *Implementation Science* developed in response to the challenges encountered when attempting to translate knowledge in real-world settings. It takes a transdisciplinary research approach and seeks to advance our understanding of the frameworks, methods and strategies that we can use to effectively translate knowledge into practice and to understand why implementation succeeds or fails (Nilsen, 2015). Implementation science was considered an important dimension to this project as we hope that use of relevant frameworks will elevate the quality of research examining interprofessional collaboration both in Ireland and further afield.

Despite growing popularity of professional learning networks in Irish educational research (Brennan and King 2022) and the recent recognition of their value in interprofessional collaboration (Concannon 2022; Quigley and Smith 2022), the literature often lacks sufficient detail on how they were established and, more crucially, how the process of their *implementation* was evaluated i.e. how and why they worked (or failed), and how to replicate or refine these structures for future uses. Similar critique has been directed at CoPs in healthcare whose implementation and evaluation is often not reported by researchers (Shaw et al. 2022). To begin to address this dearth in research, we describe a protocol for implementation and evaluation of the CoP. We share this protocol with Irish education researchers to support quality replication and evaluation of similar CoPs focused on structured literacy.

Applying implementation science

A core aspect of Implementation Science is the application of theory to real-world contexts in a structured manner. Consequently, the field is full of models and frameworks that offer an organised approach for understanding, guiding, and assessing the complex process of translating research into practice. Nilsen's (2015) systematic review categorised a range of frameworks into five types: process models, determinant frameworks, classic theories, implementation theories, and evaluation frameworks. For the purposes of this CoP, two frameworks, one deriving from the process category and one from the evaluation category, were used.

The first of these frameworks was the Quality Implementation Framework (QIF) (Meyers, Durlak, and Wandersman 2012). This process model identifies the critical steps in the implementation process along with specific actions related to these steps that can be utilised to achieve quality implementation. The adapted implementation stages that guided the design and implementation of our CoP were:

  (a) Phase 1: initial considerations (planning stage),
  (b) Phase 2: creating structures supporting implementation
  (c) Phase 3: ongoing monitoring and evaluation once implementation begins, and
  (d) Phase 4: improving future applications.

Ongoing monitoring of the *implementation* of the CoP and the members' interest and involvement was also a key focus. Given the evaluative nature of such a process, we

decided to supplement QIF (Meyers, Durlak, and Wandersman 2012) with an adapted version of Proctor et al. 's (2011) taxonomy of implementation outcomes, a framework that Nilsen (2015) classified as particularly effective for ongoing monitoring and evaluation. This framework was previously used by Serhal et al. (2022) to evaluate a virtual Community of Practice in healthcare settings. The implementation outcomes (see below) proposed by Proctor and colleagues (2011) help identify and target the intermediate outcomes that influence whether or not the intended outcomes of a specific intervention and/or initiative are achieved.

Phase one: initial considerations (planning stage)

Utilising special interest groups in recruitment

Both teachers and SLTs were recruited from special interest groups. Speech and language therapists (SLTs) who were members of the Irish Association of Speech and Language Therapists (IASLT) Developmental Language Disorder (DLD) Special Interest Group (SIG) were invited to take part. Current research in the field suggests that DLD and Dyslexia frequently cooccur (Adlof and Hogan 2018), with a relatively high proportion of children identified with DLD going on to develop a reading disability (prevalence estimates 50-84%) (Werfel and Krimm 2017). Such findings indicate that effective literacy instruction and intervention are both relevant and important issues for SLTs who are members of the SIG in DLD. Teachers who have completed the Masters of Education in Specific Learning Difficulties/Dyslexia (MEdSpLD) course in DCU between 2018 and 2022 in the last 4 years were asked to participate in the CoP. Furthermore, recruitment information was posted on a social media page entitled 'Science of Reading for Irish Teachers', which is a professional group for teachers who have an interest in effective literacy instruction. Thus, the key inclusion criterion for participants was membership of one of the listed professional groups (i.e. IASLT DLD SIG, graduates of MEd SpLD and/or Science of Reading social media group). Given that the CoP was facilitated by teacher educators, volunteering professionals were excluded from participation if they were current students on any postgraduate programmes the authors were teaching on.

All interested individuals were invited to sign up; however, participation in this initial pilot was limited. A maximum of ten participants was chosen for the initial pilot to ensure a manageable group size that allowed for effective engagement and interaction among participants.

Bounded topics within the shared domain of literacy

While structured literacy was an overall 'shared domain' (Wenger 1998; Wenger et al., 2022), we felt that each CoP should have a distinct focus, aligned with both the components of structured literacy and the 'expertise' and shared 'passion about a topic' (Wenger et al., 2022, p.4) of both professional groups. These distinct domains outlined the boundaries of CoP and supported members in their decision-making regarding what can be shared. We felt that a *narrow* 'shared domain' for each CoP was necessary to create an *equitable* common ground for meaningful interactions between the two professionals, without the risk of CoP becoming a 'consultative' forum for teachers to direct their general queries regarding students with speech, language and communication needs

Table 1. Topics of each CoP.

Phonology (e.g. production of sounds) and literacy
Phonological awareness/phonemic awareness and literacy
Phonics and literacy
Vocabulary/morphology and literacy
Syntax and literacy
Reading fluency
Reading comprehension
Assessment and intervention for dyslexic learners[a]

[a]Working with individuals with literacy difficulties is included in the scope of practice of SLT profession (IASLT Scope of Practice, 2023).

in their classrooms. The CoP 'plan' that was drafted prior to commencement included eight sessions each focused on a distinct, bounded and shared area of language and literacy. The topics for each CoP (as seen in Table 1) were selected based on dimensions of structured linguistic literacy as proposed by International Dyslexia Association (2023); they represent what are currently widely acknowledged as shared components of language and literacy.

Spelling was considered as a topic for the CoP, but was eventually excluded as a shared and equitable domain. Currently in Ireland, many SLTs consider spelling to be the primary domain of the teacher's instruction (Kazmierczak-Murray, Lehane, Hannify, forthcoming).

Phase two: creating structures supporting implementation

Bounded topics within the shared domain of literacy

Guided by Wenger's (1998) general principles of effective CoP (where structures should support the development of a shared domain, a shared community and a shared practice), the following structures supported the establishment of the CoP.

Virtual participation

The CoP itself is an effective structure for advancing professional (Kennedy 2014) and inter-professional learning (Concannon 2022; Quigley and Smith 2022; Wegner et al., 2002). In recent years, virtual CoPs have grown in popularity especially in healthcare (Shaw et al. 2022). Online CoPs offer flexible collaboration across geographic and organisational boundaries. We used an institutionally licenced Zoom as a virtual video meeting platform for this CoP. For the initial CoP, we invited all teachers and SLTs who were selected from the random lottery system; four teachers and six SLTs. The ten participants were a group of experienced practitioners, all with at least five years of either clinical or teaching experience. They worked in diverse settings; as teachers, in both mainstream and special education contexts, and as clinicians, in both education (i.e. language or reading classes) and health (i.e. primary healthcare) settings. The participants met fortnightly, at a time agreed by all in advance (Thursdays at 3pm), over four months (October 2024 to January 2025).

Sharing of expertise and resources

To support a shared approach to practice, we created an online repository of literacy tools and resources that both SLTs and teachers could potentially use. We used an

online resource sharing platform to support this (padlet.com). Access to this repository was provided to the participants and the first CoP with an agreement that the CoP facilitators would update the resources after each CoP. Participants were encouraged to add their own resources. Wegner et al. (2002) outlines that such 'shared repertoire' or 'specific knowledge the community develops, shares and *maintains* [emphasis added]' (p.29) is an essential component of effective CoPs. The meetings were facilitated by the authors of this paper. They started with an outline of the topic and sharing of definitions at the start of each CoP (this was supported by a powerpoint presentation prepared in advance by the authors, which lasted no more than ten minutes at each CoP). Following this initial outline, the meetings proceeded structured around sharing of expertise with an opening question guiding the discussion, namely 'what do you currently use in practice in relation to [topic of CoP]'. The participants could either 'unmute' or 'raise their hand' and contribute to the discussion at any time. There were no minutes, but with permission of the participants, each session was recorded to facilitate later evaluation. The recordings were stored on an institutionally approved online storage drive of the first author and will be destroyed on project completion, which was specified in the ethics application form as no later than in November 2025. The project received full ethical approval prior to its commencement.

Balance between didactic content and professional conversations

Shaw et al. (2022) suggest that the mode of interaction and technology should be important considerations in the implementation of virtual CoPs. They include the 'didactic components' as essential elements of effective CoPs. We carefully considered the balance between didactic content and professional conversations in the development of the CoP and decided to include an element of didactic content in each meeting. All three authors of this article agreed to equally contribute to the development of the didactic component in each meeting and the compilation of resources that were shared on an online collaboration tool specifically designed for this project (set up on padlet.com platform). Their inclusion supported not just professional learning but also the attention on a given literacy topic thus ensuring the integrity of a shared domain.

Phase three: ongoing monitoring and evaluation of implementation

At the time of preparing this protocol paper, the first CoP has been completed. The outstanding CoPs will run over a five-month period. To ensure the effective evaluation of the CoPs, this stage of the QIF (Meyers, Durlak, and Wandersman 2012) will be supplemented by Proctor et al.'s (2011) evaluation framework. Proctor et al.'s (2011) outcomes and our adaptation of this evaluation framework, including the proposed data collection tools (which have all received ethical approval), for the context of the interprofessional CoP focused on literacy can be seen in Table 2 below. All data collection tools to support the ongoing monitoring and evaluation of implementation have been included in the supplementary materials for this article.

Table 2. Questions that guided the measurement of implementation outcomes of the CoP.

Implementation outcome	Description of implementation outcome (definitions from Proctor et al. 2011)	Question and tools that guided the measurement of this outcome (questions in italics were answered by the participants)
Acceptability	*Stakeholders' perceptions that an implementation target is agreeable, palatable, or satisfactory.*	*How satisfied were you with each of the CoPs?* Data Collection Tool(s): Post-CoP Questionnaire, Final Questionnaire, Exit Interviews
Adoption (uptake)	*The intent, initial decision, or action to employ an implementation target.* This is the participants' utilisation of the CoP (act of adopting) as measured by the number of participants in attendance at each CoP meeting and the average number of participants in attendance over the implementation cycle.	To what extent is the online CoP adopted by participants? Data Collection Tool(s): Attendance Data, Post-CoP Questionnaire, Final Questionnaire, Exit Interviews, Researcher Journal/Notes
Appropriateness	*Perceived fit, relevance, or compatibility of an implementation target for a given context or its perceived fit for a problem.* Appropriateness is evaluated through specific questions on the evaluation forms administered to participants after each CoP meeting. Trends across and between professional roles will be examined.	*How well did the CoPs address your learning needs?* To what extent does the online CoP effectively address and fulfil the learning needs of its participants? Data Collection Tool(s): Final Questionnaire, Post-CoP Questionnaire, Exit Interviews, CoP Transcript/Recording Data
Feasibility	*The extent to which an implementation target can be successfully used or deployed within a given setting.* The average number of CoP online meetings the participants attend will inform the evaluation of this implementation outcome. Exploratory analysis will examine attendance rates according to professional role and context.	How practical/feasible was the online CoP for participants to attend? Data Collection Tool(s): Attendance Data, Final Questionnaire, Exit Interviews, Researcher Journal/Notes
Fidelity	*The degree to which an intervention was implemented as prescribed or intended.* Video recordings will be analysed to determine the extent to which CoP activities aligned with the stated protocol/structure, as described to participants in the welcome session. Ongoing evaluation forms will examine participants' perspectives of implementation fidelity for each CoP.	*Consider how well the CoP adhered to what was outlined in the welcome session. To what extent did the CoPs follow the proposed schedule? Did the CoP give enough time to each of the scheduled areas of learning? Was the structure of the CoP coherent?* Data Collection Tool(s): Final Questionnaire, Post-CoP Questionnaire, Exit Interviews, Researcher Journal/Notes, CoP Transcript/Recording Data
Implementation Cost[a]	*The financial impact of an implementation effort, and must become bearable for implementation to proceed.*	What was the financial cost of implementation?
Penetration	*The integration or saturation of an intervention within a service setting and its subsystem. This can be calculated as a ratio of those to whom the intervention is delivered divided by the number of eligible or potential recipients.* The number of students/clients who will benefit from the professional learning of their teachers/clinicians was considered in the evaluation of this outcome.	*Did you utilise the learning from the CoPs in your professional (classroom/clinical) practice?* Data Collection Tool(s): Final Questionnaire, Post-CoP Questionnaire, Exit Interviews, CoP Transcript/Recording Data
Sustainability	*The extent to which an implementation target is maintained or institutionalised within a service setting.*	*Would you be willing to continue the CoPs beyond this project duration?* Data Collection Tool(s): Final Questionnaire, Post-CoP Questionnaire, Exit Interviews, CoP Transcript/Recording Data

[a]The taxonomy of implementation outcomes includes implementation cost, which in the case of an online interprofessional CoP is minimal and thus acts as a significant implementation enabler (Damschroder et al. 2022; Proctor et al. 2011).

Phase four: lessons for the future

The fourth phase of implementing this interprofessional CoP within the QIF (Meyers, Durlak, and Wandersman 2012) focuses on refining future implementation efforts based on insights gleaned from the current cycle. Ongoing critical reflection, retrospective analysis and feedback from participating teachers and SLTs will provide insights into the feasibility, acceptability, perceived benefits, and most importantly, the sustainability of this innovation.

Transcripts from CoP meetings and focus groups with participants (on completion of eight CoPs, evaluative focus groups will be conducted by the authors online in groups of three to four CoP participants) will be systematically coded and analysed thematically to identify recurring patterns, enhancing our understanding of how well CoP discussions aligned with the intended structure of this interprofessional community. Qualitative data generated from the exit interviews will be analysed using theme-based analysis approaches. The analysis will follow open coding, axial coding and then selective coding to develop appropriate themes that synthesise the data (Williams and Moser 2019). Coding will be carried out by at least two of the authors independently, then compared and agreed on. Codes and themes will be generated from the data according to Braun and Clarke (2021a)'s approach.

We hope that qualitative data extracted from the analysis of CoP recordings will offer nuanced insights into participant interactions, providing a deeper understanding of the extent to which intended outcomes of the CoP were achieved – that is, to create the environmental conditions in which all members engage in both the *sharing* and *gaining* of knowledge through an equitable focus on literacy. We hope that this analysis will reveal novel perspectives on how teachers and SLTs engage with one another in an interprofessional community, contributing to a more comprehensive evaluation of this distinct form of CoP.

Additionally, pre – and post-implementation questionnaires will assess participants' perceived confidence across several domains of literacy. This approach will enable us to measure changes in participant self-assessed confidence levels in the targeted areas and will inform our evaluation of the CoP's overall effectiveness. Findings derived from phase four of this implementation cycle will inform and strengthen planned future iterations.

Conclusion and discussion

This paper presents a novel study protocol as it describes the establishment and proposed evaluation of an interprofessional Community of Practice (CoP) for teachers and SLTs in the domain of literacy. We believe that literacy is a powerful area that could advance equitable interprofessional practice between these two disciplines. Our key aim behind establishing an interprofessional CoP, the protocol for which we now share to support its replication and further validation, was to advance Irish scholarship on interprofessional practice and to explore if our hypothesis of literacy as an avenue for equity is well founded.

This method paper provides theoretical and methodological insights that may be of relevance to others within the field of Irish education. In particular, our work brings more prominence to the *practical* application of Implementation Science in the wider education sector in Ireland. The research on Implementation Science and practice has

expanded significantly in recent years and is emerging in education (for example, Gallagher et al. 2023a, 2023b; Prendeville, Bourke, and Kinsella 2023) yet our understanding of the complexity of implementation, both globally but especially in Ireland, remains significantly underestimated. By allowing colleagues to see our approach in applying Implementation Science frameworks, we hope that others will consider more robust approaches to documenting and evaluating educational interventions so that a more evidence-informed mindset to all kinds of educational research can be adopted (Gilleece and Clerkin 2024).

We detailed a staged process of the development and implementation of an online interprofessional CoP for teachers and SLTs with a comprehensive evaluation framework that can be used by future researchers and policy makers to guide their establishment and evaluation of similar professional learning networks. Structured Literacy offers an exciting, innovative and equitable domain to advance interprofessional practice between teachers and SLTs. We hope that our implementation protocol can be replicated in both Irish and international contexts to advance what is the ultimate aim of interprofessional work, namely the improvement of outcomes for children and young people.

Disclosure statement

Notes on contributors

Dr Sylwia Kazmierczak-Murray is an Assistant Professor in the School of Inclusive and Special Education. She is a CORU registered Speech and Language Therapist. Her research and teaching focuses mainly on language and literacy interventions, interprofessional collaboration, and children and young people's participation. She co-chairs a European Implementation Collaborative Working Group which champions Implementation Science approaches in formal and non-formal education.

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Christina Hannify is an Assistant Professor of Education in the School of Inclusive and Special Education at Dublin City University (DCU). She previously taught in both mainstream and special school settings and was seconded as an Inclusion Advisor with the National Council for Special Education before joining DCU. She is currently undertaking a PhD focused on the early identification of and intervention for children at risk of reading difficulties, with an emphasis on inclusive, research-informed approaches to literacy support.

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