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ABSTRACT

Team teaching as a concept and approach has long been advocated at a policy level both internationally and in Ireland. However, there is very little focussed research on the use of team teaching as an approach in post-primary schools in Ireland or on its potential as a medium of teacher professional development.

This article presents the findings of a two-year collaboration between the Department of Education, Maynooth University and the Professional Development Service for Teachers (PDST) to support student teachers and qualified teachers to engage in team teaching. It reports on the context for the collaboration and the educational policy landscape relating to team teaching in Ireland. The main focus of this paper is to report the perceptions of experienced teachers about the potentialities of team teaching as a form of professional development.

The findings highlight the fragmented and tenuous way in which team teaching exists in many schools, with one teacher asserting that it is 'promoted widely but not valued'. Despite challenges, the data affirm a very strong appetite among post-primary teachers in Ireland for increased support to use team teaching as an approach that they report to be a valuable medium of professional development.

Introduction

Teacher professional development has become a national and international priority for education systems in recent years (Organisation for Economic Co-operation and Development [OECD] 2014). The concept of professional development has evolved over time and ranges from an instrumentalist understanding rooted in accountability and raising standards to a broader conceptualisation of lifelong learning with professional and personal dimensions (Kennedy 2007, McMillan *et al.* 2016). In most countries, teacher professional development forms part of a continuum of teacher education following initial teacher education (ITE) and induction. There is increasing recognition of the importance of providing innovative and informal teacher professional development (Kennedy 2011). One such provision for informal professional development is team teaching, which in its simplest terms, brings together two or more teachers to work collaboratively with a class of students. This policy focus is informed by much empirical research lauding the positive impact of team teaching on students, teachers and the wider education system (Anderson and Speck 1998, Jang 2006, Vangrieken *et al.* 2015).

However, there has been little systematic and focussed research in the Irish context on team teaching as a pedagogical practice. It was in this context that the Department of Education in

Maynooth University and the Professional Development Service for Teachers[1] (PDST) collaborated in the design and delivery of a project with the dual purpose of providing support for and gathering data about both student teachers' and experienced teachers' use of team teaching as an approach in post-primary schools.[2] The aim of this paper is to report on the findings from the research project with a specific focus on answering the following research question: What are experienced post-primary teachers' views on the potentialities of team teaching as a form of professional development?

First, the policy landscape for teacher professional development and team teaching in Ireland is explored, focusing on a range of recent policy developments for post-primary education. Second, the extant national and international literature regarding team teaching as a form of professional development is reviewed. This literature is critiqued within a conceptual frame of professional learning communities (PLCs) (Stoll *et al.* 2006) and developing professional capital (Hargreaves and Fullan 2012). Third, the research design and methodology employed in gathering empirical data for the study are delineated. This is followed by a presentation and analysis of the empirical findings across four main themes. The paper concludes with a discussion of the key findings and posits signposts for future developments.

Policy landscape for teacher professional development and team teaching

This section focuses on the policy landscape relating to teacher professional development and team teaching. It begins with a brief overview of the international context and continues with a more in-depth focus on Ireland.

Provision for teacher professional development varies internationally and is primarily linked to the historical development of teacher education in a given jurisdiction as well as the contemporary teacher education continuum. Swennen (2013) asserts that teacher professional development policy across Europe is still largely motivated by concepts of accountability and standards, while incorporating elements that advocate teacher agency, collaboration and personal development. Indeed, much of this direct focus has been on improving student outcomes rather than directly focusing on teachers' learning.

Collaborative teaching, including team teaching, is being used more extensively across education systems to meet the needs of diverse learners in an inclusive way as well as to promote teacher professional development (Scruggs *et al.* 2007, Liston *et al.* 2010, Moolenaar *et al.* 2012). The OECD *Teaching and Learning International Survey* (TALIS) data from 2008 and 2013 indicate that engagement in teacher professional collaboration, including collaborative teaching, was positively linked to teacher self-efficacy (OECD 2009, 2014). Despite policy efforts in most jurisdictions, statistics from the 34 participating countries indicate that collaborative practices are in an embryonic stage of development in many jurisdictions. This leads Burns and Darling-Hammond (2014, pp. 19–20) to conclude that:

> … in many countries, a significant proportion of teachers still teach largely in isolation and may be missing out on valuable opportunities to collaborate, receive feedback, and learn from their colleagues.

Team teaching is not a new concept in Irish education policy. For more than a decade, policies from the Department of Education and Skills (DES) have advocated the use of team teaching in Irish classrooms (DES 2007). More recently, the National Council for Special Education (NCSE) (2013, 2014) and the DES (2017a) promote the use of team teaching and other co-operative activities along a continuum of teaching approaches. In reality, the only sustainable way in which team teaching can be currently resourced to allow for two teachers to be present in the same classroom at the same time is through the current resource allocation model for special education needs (SEN). Nationally, the role of approximately 15% of teachers in post-primary schools is specifically to support student inclusion (DES 2019).

A school improvement agenda is also integral to Irish education policy. School self-evaluation has become a requirement in post-primary schools and the DES published a quality framework to support the work of schools engaged in this process (DES 2016). This framework includes 'teachers' collective/collaborative practice' as one of the four domains to be considered, with a focus on teacher collaboration and sharing of expertise. Moreover, this framework informs the work of external DES inspections where there is an equal focus on teachers' individual and collective practices.

Teacher collaboration is seen as central to all elements of the continuum of teacher education. At ITE, collaboration is a central principle and the ability to collaborate is an expected outcome of ITE programmes (Teaching Council 2017a). Team teaching is specifically mentioned as one of a range of desirable experiences while undertaking school placement during ITE (Teaching Council 2013). Teacher collaboration is also seen as central to the work of the national teacher induction process, *Droichead*[3] (Teaching Council 2017b). This provides for experienced teachers mentoring newly qualified teachers as well as reciprocal visits to classrooms to observe and discuss professional practice.

Provision for teacher professional development in Ireland is largely funded by the DES and it focuses more on disseminating national policies rather than developing teachers' wider professional capacity (Sugrue 2002, O'Sullivan *et al.* 2012, McMillan *et al.* 2016). The Teaching Council Act (Government of Ireland 2001) places statutory responsibility for the 'continuing education and training and professional development of teachers' within the remit of the Teaching Council. The architecture of teacher professional development policy in Ireland is crystallising since the publication of the *Framework for Teachers' Learning* in 2016, entitled *Cosán*[4] (Teaching Council 2016). This emergent policy recognises teachers as autonomous learners and the need for a flexible framework to respond to the diverse needs of teachers who work in different contexts and have varied learning needs. Within this framework, 'engaging in team teaching' is noted specifically as a recognised learning process for teachers.

It is evident that concepts of teacher professional learning and team teaching are prominent and evolving in the policy landscape in Ireland at present. However, practical support for this policy direction and enactment in schools is less fulsome, with much being left to the initiative of schools to shift from more traditional, individualistic approaches to more collaborative practices (Ó Murchú and Conway 2017). Such a shift challenges the prevailing culture of teachers in Ireland, who have traditionally valued the 'privacy of their practice' (O'Sullivan 2011, p. 123).

The paper now moves to explore pertinent research relating to the potential of team teaching to support teachers' professional learning. It begins by delineating the conceptual framework for the research.

Literature review

Conceptual framework for the research

This research is underpinned by a conceptual framework informed by two theories, namely professional learning communities (PLCs) (Stoll *et al.* 2006) and the development of professional capital (Hargreaves and Fullan 2012). Stoll *et al.* (2006, p. 5) define a PLC as:

> . . . an inclusive group of people, motivated by a shared learning vision, who support and work with each other, finding ways, inside and outside their immediate community, to enquire on their practice and together learn new and better approaches that will enhance all pupils' learning.

Within PLCs, the focus is on individualised and collective social, emotional and academic learning for each participant. Bolam *et al.* (2005) identify eight characteristics of effective PLCs, including shared values and vision, collective responsibility, reflective professional enquiry, mutual trust, respect and support. Team teaching offers a context for many of the characteristics of a PLC to be

achieved, including providing teachers with the opportunities to learn collaboratively through planning, shared decision making, observing each other's classroom and sharing feedback, and bringing '…together the knowledge, skills and dispositions of teachers in a school or across schools to promote shared learning and improvement' (Hargreaves 2003, p. 170). Moreover, team teaching places the locus for teacher professional development in the classroom and school and provides a context for teacher expertise to be unleashed and shared (Lieberman and Miller 2008).

The second theory relates to professional capital. Hargreaves and Fullan (2012) define professional capital as comprised of three distinct elements, namely, human capital, social capital and decisional capital. They note the importance of developing teacher professional capital over time and one of the key means of developing such capital is through collaboration, collective reflective practice, teamwork and professional interactions with fellow professionals. Team teaching provides the context for developing the capacity to make professional judgements and decisions in a community milieu of teachers as a class or term unfolds.

Defining professional development and team teaching

There are multiple interpretations, definitions and terminological differences in the conceptualisation of terms such as professional development and team teaching that have evolved across various contexts, jurisdictions and times. The challenge to define professional development and to agree on terminology is evident in the aforementioned *Cosán* framework (Teaching Council 2016), which employs 'teachers' learning', 'professional learning' and 'continuing professional development' (CPD) interchangeably. Despite the lack of clarity in terminology, the general thrust of teacher professional development as understood in *Cosán* is something that is experiential, collaborative, sustained, enquiry-based and relevant to classroom practice. This represents a shift in understanding from traditional provision for professional development in Ireland which was generally centrally mandated and delivered externally (Sugrue 2002). Given the context for the research, this paper adopts an earlier definition of professional development by the Teaching Council as a working definition. It states:

> Continuing professional development (CPD) refers to life-long teacher learning and comprises the full range of educational experiences designed to enrich teachers' professional knowledge, understanding and capabilities throughout their careers (Teaching Council 2011, p. 19).

Over two decades ago, Anderson and Speck (1998) focused on the complexity of defining team teaching and critiqued the various definitions offered at that time. At present, multiple terms such as co-teaching, collaborative teaching and co-operative teaching are still used to denote the many forms of collaborative practice between teachers across a range of pedagogical contexts. Vangrieken *et al.* (2013) argue that distinctions in definitions are fading as the working realities of all the various configurations display many elements of similarity and many characteristics of what is considered important for team teaching applies to all groupings. Team teaching is the term mostly widely used and understood in schools in Ireland. While oftentimes characterised as a methodology, team teaching is better understood as a mode of delivery that supports various approaches to and methods of teaching, learning and assessment for both teachers and students. This research uses the definition developed by a large-scale team teaching project in Ireland which states that:

> Team teaching is when two (or more) teachers share the instructional responsibility for a class, including planning and evaluation. They share the leadership of the class and responsibility for all students (County Cork Vocational Education Committee 2011).

Team teaching as professional development

This section focuses on the key issues from the research literature relating to the potential of team teaching as a form of teacher professional development. Following a brief general overview of the literature, the section is structured around the four key themes of teacher identity and school

culture, shared vision and understandings, compatibility and relationships, and structural issues such as time and leadership.

Team teaching has the capacity to promote powerful individual and collective learning when two or more teachers collaborate in their own classrooms. Working collaboratively, teachers are active agents in identifying their own learning needs and in the learning process which is a principle advocated in the literature (Lieberman 1995). The Centre for the Use of Research and Evidence in Education (2003) reports that collaborative professional development impacts positively on teachers' repertoire of teaching practices, instructional strategies and self-efficacy. School-based professional development also has the capacity to be sensitive to school context and to promote the collaborative development of local solutions to identified issues and challenges integral to the daily professional work of teachers (Appova and Arbaugh 2018, Kwakman 2003, Burns and Darling-Hammond 2014, De Paor 2016, Parker et al. 2016, Goodyear 2017). Team teaching provides for the key characteristics of effective teacher professional development which is experiential, collaborative, sustained, enquiry-based and relevant to classroom practice (Darling-Hammond and McLaughlin 1995, Guskey 2000, Stoll et al. 2006, Darling-Hammond and Richardson 2009).

Professional development is an essential element to support effective team teaching as well as an outcome of engaging in the practice. Research literature cites the importance of teacher preparation focusing on building shared understandings (Brownell et al. 2006, Leatherman 2009), exploring various models of team teaching (Scruggs et al. 2007, Friend et al. 2010), communication skills (Carter et al. 2009, Friend and Cook 2010) and reflection skills (Jang 2006, Fluijt et al. 2016). Vangrieken et al. (2015) offer useful considerations for the achievement of successful collaboration among team teachers, including structural characteristics (e.g., time), process characteristics (e.g., flexibility and a sense of community) and organisational characteristics (e.g., a whole school approach and leadership support). While structural components impact on the quality and success of the team teacher relationship, personal elements such as personality, attitudes and perceptions are more important (Brown et al. 2013, Forte and Flores 2014). Hoekstra et al. (2009) identify four categories of informal learning activities: learning by experimenting, learning by considering one's own teaching practice, learning through getting ideas from others and learning by doing. Team teaching provides a context for all of these categories to be addressed.

The issues of **teacher identity and school culture** are very relevant to team teaching. Dieker and Murawski (2003) identify issues of a 'closed-door syndrome' where teachers work in isolation, making coordination and communication with other teachers difficult. Jang (2006, p. 192), reporting on the Taiwanese context, notes the challenge team teaching brings to teachers who traditionally ' . . . tended not to make public their teaching strategies . . . ' and who had an individualistic ' . . . deep-rooted traditional teaching culture . . . '. Arguably, there are similarities between the teaching cultures in Ireland and Taiwan as research also characterises teaching practices in Ireland to be traditional, transmissive and individualistic (Gleeson 2010, O'Sullivan 2011, Ó Murchú and Conway 2017). For example, TALIS data for Ireland in 2009 indicate that teachers participated more in exchange and co-ordination of ideas (such as sharing resources and discussing individual students) rather than deeper professional collaboration (such as team teaching or observing another teacher and giving him/her feedback) (Gilleece et al. 2009).

Fluijt et al. (2016) argue that conceptualisations of team teaching and indeed research to date have neglected the importance of a **shared vision and understandings** by the teachers involved in team teaching. Such a shared vision can be achieved by active learning, reflective thinking and collective participation. They propose that team reflection is often missing in the context of team teaching and this is required for collaborative 'sense-making' and to sustain the relationship in diverse and dynamic teaching environments. Bottery et al. (2009) argue that team reflection works best when it is undertaken in a non-hierarchical, non-judgemental, private and personal environment. High levels of shared reflection are especially important and necessary at the outset of a team teaching relationship to ensure a shared understanding of pedagogical choices, to prevent misunderstandings

and to garner trust and confidence (Conderman *et al.* 2009, Pratt 2014). The critical nature of shared values and vision has been highlighted by Bolam *et al.* (2005) as a key characteristic of effective PLCs.

Kennedy (2011, p. 26) identifies the centrality of relationships in the effectiveness of professional development, moving ' … it away from a transmissive information-giving activity to a potentially much more transformative process.' Krammer *et al.* (2018), writing in the Austrian context, highlight parity, shared responsibility, ***compatibility and relationships*** as particularly important in team teaching. They suggest that allowing teachers to select their teaching partner as opposed to school-composed teams could lead to enhanced collective self-efficacy, shared responsibility, job satisfaction and joint teacher effectiveness. Where such self-selection is not possible, ' … and teachers are simply put together, these teams should be provided with additional help such as team building measures' to clarify roles and negotiate personal differences (Krammer *et al.* 2018, p. 475). The issue of compatibility among team teachers is also cited in wider research (Scruggs *et al.* 2007). Ultimately, the aim is for team members to work together on an equal footing and view elements of teaching from a joint perspective. In the Irish context, teachers report valuing opportunities for building professional relationships, returning to forgotten good practices and peer learning with colleagues through team teaching (Murphy 2011, 2017). Such practices impact positively on teachers' knowledge, skills and self-efficacy, and on their job satisfaction (Day *et al.* 2007, Jackson and Bruegmann 2009, Skaalvik and Skaalvik 2011).

Pratt (2014) forwards a theory of 'Achieving Symbiosis' by depicting the process team teachers experience in creating effective partnerships. This leads from a process of initiation (either through volunteering, requesting or by expectation) which is accompanied by feelings from hesitation to expectation, followed by a 'symbiosis spin' (including testing the waters, building a partnership and reflecting to improve) through to a point of fulfilment characterised by elements such as compatibility, valued relationships and reflection. This image of a 'symbiosis spin' is useful to capture the complexity and recursive nature of elements that team teachers grapple with as they learn to work together and from one another.

Structural issues have also been highlighted as significant in the use of team teaching as a form of teacher professional development. Time has been identified in much research as the key constraint to teachers' engagement with professional development (Villegas-Reimers 2003, Buczynski and Hansen 2010, Avalos 2011, Bubb and Earley 2013, OECD 2014). In terms of team teaching, Dieker and Murawski (2003) assert that time is a prerequisite for teachers to progress through the stages of storming, forming, norming and performing. The issue of time is particularly pertinent in Ireland considering the intensity of teacher-student contact. As the OECD *Education at a Glance 2018 Indicators* elucidate, the ' … teaching contract for Irish teachers focuses primarily (if not exclusively) on teaching time' (DES 2018, p. 16). The intensity of teacher-student contact hours throughout the school day and school year leaves minimal time for the establishment of PLCs or other fora to discuss pedagogical issues or to enable collaborative planning, teaching or reflection. A lack of systematic support from leadership and management in terms of providing time and space for team teachers to build their relationship, plan or reflect on team teaching is also a commonly cited challenge in the literature (Dieker and Murawski 2003, Jang 2006, Carter *et al.* 2009, Friend and Cook 2010).

In spite of the vast literature on teacher professional development and team teaching, research evidences that many opportunities for teacher professional development are still offered in a traditional vein (Wei *et al.* 2009, Swennen 2013, Keay *et al.* 2019). Moreover, there is a gap in the research in relation to the potential use of team teaching as a form of professional development in Irish post-primary schools. It was with this gap in mind that the research outlined in this paper was undertaken to explore teachers' understandings, perceptions and hopes in the Irish context. The paper now turns to the methodology for the research project.

Methodology

Participants and procedures

This research project began in the 2014–15 school year with a pilot project involving 15 Professional Master of Education student teachers and their co-operating teachers in partner placement schools (Rickard and Walsh 2019). The research project was then extended to include all year two Professional Master of Education student teachers alongside experienced teachers from their placement schools in 2016–17 and 2017–18. In both years, student teachers, as part of their second year university course, and experienced teachers by voluntary participation, attended two workshops delivered in four regional locations by facilitators from the Maynooth University Department of Education and the PDST. Moreover, they committed to undertake team teaching in their schools with a view to sharing the outcomes of the experience with their colleagues.

The first workshop introduced participants to the concept of team teaching, explored various definitions from the literature, examined various models of team teaching and their application and presented relevant research regarding the practice. Participants were encouraged to engage in team teaching with either a student teacher or an experienced teacher following the workshop by either continuing existing practice or creating a new opportunity for team teaching as part of their professional practice. At the second workshop, the experiences of the participants were explored and unpacked through a range of activities, including role play and situational tasks. The commitment to sharing practice was facilitated through a national seminar later in the school year at which individual teachers or team teaching pairs were encouraged to develop and share a poster of their key insights and reflections from participation in the project. Teachers were also encouraged to use this poster as a basis for facilitating dialogue and sharing learning with their colleagues in schools.

This paper reports the findings from two cohorts of experienced teachers who participated in the project in 2016–17 and 2017–18. The data were generated through the completion of two anonymous questionnaires; one at the outset first workshop and the other at the second workshop. This paper focuses on the data relating to experienced teachers' perceptions of the potentialities of team teaching as a form of professional development. The number of experienced teachers who completed the questionnaires each year is outlined in Table 1.

Research design and methods

The aims and objectives of this research were best accommodated within a constructivist paradigm which sought to elicit and explore the experiences and perspectives of the participants. Ethical approval for the research was granted by Maynooth University Ethics Committee in both 2016 and 2017. All participants received comprehensive information in both oral and written forms and signed a consent form prior to participation.

Hard-copy, anonymous questionnaires were chosen as the main research instrument given the multiple locations of the workshops, the large number of participants and the candour anonymous questionnaires provide for (Cohen et al. 2011). The questionnaire was piloted to ensure accessibility and clarity (Bell 2010). Following initial analysis of the 2016–17 data, additional questions were added for 2017–18 (marked in this paper as '2017–18 only'). The range of standardised, inferential, descriptive and explanatory question types (Oppenheim 1992) provided

Table 1. Experienced teacher participants (2016–18).

	2016–17	2017–18	Total
Workshop 1 questionnaire: Experienced teachers	44	69	113
Workshop 2 questionnaire: Experienced teachers	39	43	82
Total	83	112	**195**

for the gathering of both quantitative and qualitative data. Each questionnaire also collected demographic details on the respondent, including years of teaching experience and details on teacher qualifications.

Descriptive and analytical statistics from the closed questions and Likert scale questions were assembled (Robson 2011). Answers to open-ended questions were collated and read closely to identify emerging patterns. Codes were then assigned to segments of the text, reflecting an inductive approach to data analysis (Cohen *et al.* 2011). These were subsequently subsumed into themes following further re-reading and analysis using Braun and Clarke (2006) six-step process. Linear regression analysis was employed to explore the relationship between one dependent variable and one or more independent variables within the data (Harrison and Raudenbush 2006), mostly relating to teacher demographic information. This revealed the four broad themes as outlined in the findings.

Findings and discussion

This section begins with a brief profile of the research participants. The findings from both years (2016–17 and 2017–18) are then presented simultaneously under four broad themes, namely:

(1) Teacher preparedness for collaboration through team teaching
(2) Shared vision and understandings
(3) Teacher agency and self-efficacy
(4) Teacher and school structures and culture

Profile of participants

The professional worksite of experienced teachers participating in the team teaching workshops corresponded broadly to the profile of school types in Ireland (DES 2017b, p. 2). In 2017–18, 53% were teaching in voluntary secondary schools, 29% were teaching in Education and Training Board schools and 18% were teaching in Community and Comprehensive Schools.

There was a considerable spread in the range of experience of participating teachers, with 32% teaching for fewer than six years, 26% teaching for between seven and 13 years, 29% teaching for between 14 and 20 years and 13% with more than 20 years teaching experience (2017–18 only). A significant percentage (28%) had taught in schools outside of the Republic of Ireland, with the majority of these having spent less than two years working in another jurisdiction. Almost 90% of the teachers involved had undertaken their ITE in Ireland, while the remaining 10% had qualified in the United Kingdom.

When asked if team teaching was promoted in their schools, 78% of participants indicated that it was, with more than half of these indicating that it was used either weekly or daily. Participants elaborated on this by indicating that management in their schools was supportive of team teaching and that teacher collaboration was generally promoted in recent years. Of those who indicated that it was not promoted, a majority asserted that it was a personal endeavour in their own time rather than something that was systematically supported in terms of time or resources by school management. For example, more than 80% of participants indicated that their school did not provide any resources or time to support teachers to engage in team teaching (2017–18 only). Over 67% of participants engaged in team teaching within their schools, with 42% doing so on a weekly or daily basis.

Approximately two-thirds of teachers had an opportunity to team teach between the workshops across both years of the project. Those who did not team teach indicated a lack of time, a lack of available classes or a dearth of willing teacher colleagues as the reasons for not undertaking team teaching. The most popular context for the experienced teachers undertaking team teaching was with a PME student teacher (47% of experiences) or with another experienced

teacher from within the same subject department (37% of experiences). Surprisingly given the policy and resource landscape in Ireland, only 12% of teachers reported having team taught with an SEN teacher.

Theme 1: teacher preparedness for collaboration through team teaching

When asked if their ITE programme included any form of input on team teaching, 88% of participants indicated that it had not. A slightly higher proportion of teachers who undertook their ITE outside Ireland had engaged with team teaching as part of their preparation. Similar results were evident when participants were asked if they had undertaken any form of professional development in team teaching since graduation. In this instance, 90% of teachers indicated that they did not have an opportunity to do so.

For those who did not have team teaching as part of their ITE or an opportunity to engage in professional development relating to team teaching, only 35% indicated that they felt adequately equipped to engage in team teaching in their schools (2017–18 only). Interestingly, for those who did engage in team teaching either in their ITE or as part of subsequent professional development, there was an even split in their view on whether it prepared them to team teach, with 50% feeling equipped and 50% not feeling equipped to team teach (2017–18 only).

Participants reported that team teaching was supported 'in theory yes but in reality resources are not made available' and that planning and review occurs 'as long as it's in our own time!' These findings resonate with Dieker and Murawski (2003) research which notes the critical importance of time to build relationships and shared understandings among team teachers. They also correlate with national and international research that evidences teachers spending time beyond their contractual obligations engaging in professional activities (Devine *et al.* 2013, Merritt 2016). Overall there was a view that it is 'promoted widely but not valued' considering the lack of planned and systematic support provided to teachers engaged in team teaching.

The main areas that led to teachers feeling inadequately prepared for team teaching were a lack of understanding around the roles and responsibilities of team teachers, the uncertainty of knowing whether what they were doing was 'right' and how to support students with specific needs within a team teaching context. The issue of role definition emerged as significant, with one participant reporting that 'I'm not sure what my role entails as the "Team Teacher" going into a classroom' and another asserting that 'it's hard to establish exactly what my role is sometimes.' This quest for clarity regarding roles and responsibilities echoes the findings of Trent *et al.* (2003) who assert how such clarity is fruitful for team teaching partnerships.

Overall, the data show a significant mismatch between teachers' preparation for team teaching through ITE and subsequent professional development and the expectations placed on them by national and school policy to engage in team teaching activities. This can impact negatively on teacher self-efficacy as they grapple earnestly to engage in a practice in which they do not feel a sense of professional competence or confidence (see theme 3). Ultimately, this lack of preparation impacts negatively on the potential of team teaching to act as a form of professional development for teachers who often lack the confidence to engage fulsomely in the practice with colleagues.

Theme 2: shared vision and understandings

Teacher compatibility, and the fear of incompatible pairings, was a major concern for participants. The importance of choosing a compatible teacher in terms of one's teaching philosophy, someone who 'share(s) the same approach', was noted by a large number of participants as key to ensuring professional development in a team teaching context. The need for school management to assume a 'sensitive and professional approach' to team teaching pairings was asserted as it 'won't work if they (teachers) are informed they are going to team teach.' One participant reflected on having 'both

quite positive and quite negative experiences – two different teachers, two different personalities.' These sentiments echo those of Scruggs *et al.* (2007) and Krammer *et al.* (2018) who assert the importance of teacher compatibility.

The lack of time and opportunity to engage with counterpart team teachers were reported to lead potentially to poor professional relationships and misunderstandings. Participants reported feeling that the ' . . . other teacher [was] not investing to the same degree as me . . . ', while in other instances, teachers reported feeling side-lined in the classroom. Some teachers lamented that team teaching was not taken seriously by their counterpart teacher and that it was used as an opportunity by them to engage in non-teaching activities, such as co-curricular activities. Much of this can be attributed to the lack of a shared understanding or vision for the team teaching arrangement as advocated by Bolam *et al.* (2005).

Communication was seen as key to success and a lack of shared understanding or vision was seen as the outcome of inadequate communication and relationship building. Taking the time to establish a professional and personal relationship with the other teacher was also advocated by participants in the project and many asserted that this was vital to define roles and responsibilities. Pratt's (2014) 'symbiosis spin' and the importance of relationship building in the initiation phase resonates well with these views. When relationships fully break down, this can have a destructive effect on teachers' professional confidence and identity, with one teacher reporting that it ' . . . feels at times like being observed, no communications, no collaboration and no want to collaborate.' Another teacher reported that his/her team teacher 'was very dominant and undermining' and the relationship lacked a parity of esteem. In such scenarios, it is unlikely that team teaching will have a positive impact on the professional development of teachers.

Teacher confidence emerged as a significant issue within the research. Many teachers expressed their apprehension and anxiety at being observed by a colleague and felt stressed at the judgements that might be formed by others about their professional practice. This anxiety may relate to the general process of professional formation where classroom observations are used to grade teaching practice/school placement or indeed inspection visits, where teachers are evaluated by a member of the DES Inspectorate. Indeed, the reluctance of other teachers to team teach was cited as a key reason by one third of those who participated in the project for not engaging in team teaching between the workshops.

Theme 3: teacher agency and self-efficacy

An overwhelming positivity was reported by teachers who had an opportunity to engage in team teaching. Overall, 52% of participants rated the experience as very positive and 45% rated it as quite positive with only one participant (3%) stating that he/she found the experience neither positive nor negative. The findings presented in Table 2 give an overview of the level of positivity expressed by teachers following engagement in the project.

Table 2. Team teaching.

Team teaching . . .		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not sure
. . . is beneficial to students	2016–17	79.41%	20.59%	0%	0%	0%	0%
	2017–18	67.44%	32.56%	0%	0%	0%	0%
. . . provides an opportunity to explore new methodologies	2016–17	58.82%	38.24%	2.94%	0%	0%	0%
	2017–18	69.77%	30.23%	0%	0%	0%	0%
. . . is an effective form of CPD for teachers	2016–17	52.94%	38.24%	5.88%	2.94%	0%	0%
	2017–18	66.67%	33.33%	0%	0%	0%	0%
. . . should be practised more often in Ireland	2016–17	55.88%	38.24%	5.88%	0%	0%	0%
	2017–18	76.19%	21.43%	2.38%	0%	0%	0%
. . . is not a realistic proposition in Ireland	2016–17	8.82%	20.59%	20.59%	20.59%	29.41%	0%
	2017–18	6.98%	9.3%	6.98%	34.88%	39.53%	2.33%

It is evident from the findings that engagement in team teaching impacted positively on teachers' self-efficacy. This related to their own professional confidence as teachers with their colleagues as well as their capacity to respond to the needs of their students. As one participant indicated:

> I felt that having two teachers facilitating group and pair work meant that students had twice the chance of being heard and getting feedback.

While one of the benefits of team teaching was reported by many to be additional provision for students with SEN, a concern was raised by others that team teaching may not be the best response for students with more acute additional needs. As one participant stated:

> I'm not sure that students with particular needs will have as much support within the team teaching classroom as they would have had with the one on one withdrawal model.

This perception that the new policy direction (DES 2017a) champions in-class support over other models of support, such as withdrawal, requires further exploration at a school and national level. Teacher self-efficacy in terms of meeting student needs could be affected by this policy shift and the rationale for team teaching in particular classes and contexts needs to be clear and flexible.

In terms of teacher self-efficacy, there was a sense among some that team teaching provided a learning experience that enabled them to return to previously-used good pedagogical practices, resonating with the findings of Murphy (2011, 2017)). Teachers reported that they were enabled to use more active and inclusive methods such as group work and they were able to vary these throughout lessons. The significance of each teacher bringing his/her particular teaching style and specific expertise, drawing 'on their strengths on the topic being taught,' was also cited as a benefit in responding to the wide range of student learning dispositions. Similar to previous research (Centre for the Use of Research and Evidence in Education 2003, Jackson and Bruegmann 2009, Skaalvik and Skaalvik 2011), teachers felt higher levels of self-efficacy and professional satisfaction when able to respond more comprehensively to students' needs.

A number of teachers also referred to the generally enhanced classroom learning environment where classroom management issues were reduced and the learning atmosphere was improved. Participants reported the benefit to be an 'extra pair of hands with a challenging class' or a 'willingness to "loosen the reins on the class" because we knew it would be easier to re-establish control when we needed to with two teachers.' The significance of modelling collaboration and positive teamwork, 'seeing two teachers co-operating together in a positive way', was also cited as an important learning opportunity for students.

In terms of the key focus of this paper, 100% of teachers in 2017–18 and more than 90% in 2016–17 asserted that team teaching is an effective form of professional development. This development was achieved by observing one another and by collaborating on lesson design, delivery and reflection. As one participant indicated, 'I saw a different approach to teaching a topic – [I] observed a new methodology that would change my method and improve (it).' One participant reported feeling enhanced self-confidence and professional satisfaction as the 'mutual support and the sharing of ideas means that I feel like a better teacher.' Other participants commented on the benefits of 'seeing how another teacher manages the class' and that 'It exposed me to different teaching methodologies and enabled me to learn from my colleague.' While these may seem like simple opportunities, TALIS data (Gilleece *et al.* 2009) as well as other research (Hogan *et al.* 2007, Gleeson 2010) indicate that opportunities for peer observation and professional conversations are rare in Irish schools. Peer learning and the sharing of expertise were enabled through the team teaching opportunity, breaking down the 'privacy' that characterises much of the professional practice of teachers in Ireland (O'Sullivan 2011). This resonates with the beliefs of Lieberman and Miller (2008) who see one of the key features of PLCs as unleashing and sharing expertise within schools.

The vast majority of participants indicated that team teaching should be practised more widely in Ireland. Despite constraints, most teachers disagreed with the assertion that team teaching is not a realistic proposition in Ireland, with 74% of teachers in 2017–18 asserting that it is a practice that can work in schools in Ireland. This is a surprising finding considering the limited systemic support for team teaching in Ireland (Ó Murchú and Conway 2017) and the level of preparation for team teaching that most participants reported. This level of support and optimism bodes well for future policy initiatives to promote teacher professional development through team teaching in Ireland.

Theme 4: teacher and school structures and culture

Similar to the international research (Dieker and Murawski 2003, Buczynski and Hansen 2010, Avalos 2011, Bubb and Earley 2013, OECD 2014), structural issues emerged as one of the key barriers to team teaching acting as a form of professional development for teachers. The paucity of time was seen as the main impediment to planning for, engaging in and reviewing the team teaching process. This lack of time for collaborating with other teachers was most likely a contributory factor to the second most commonly cited issue of not being clear about the relative roles and responsibilities of team teachers. This finding is of concern as research noted above (Trent *et al*. 2003, Krammer *et al*. 2018) asserts the need for role clarity for successful team teaching practices. In Ireland, teachers are timetabled for the vast majority of the school day with little time for non-contact professional activities (DES 2018). This poses a significant challenge for school management and leadership in Ireland to develop timetables that facilitate team teaching as well as allowing opportunities for shared planning and reflection. This issue has also been noted in research relating to other jurisdictions (Carter *et al*. 2009, Friend and Cook 2010).

The provision of time was considered particularly important by participants at the outset of team teaching to develop a 'clear idea of roles and who does what and when'. One participant noted that 'planning was duplicated until we got used to it' and another reported that it was 'very difficult to find your place in the classroom' until there was agreement and clarity around roles and responsibilities. These findings resonate with those of Conderman *et al*. (2009) and Pratt (2014) who assert the need to develop shared understandings at the outset of team teaching. Other participants asserted the need for time to 'reflect together on the experiences' in order to derive full benefit from team teaching. The importance of reflection to create a shared vision and for collaborative sense making is prominent in the literature (Coburn 2001, Sileo 2011, Fluijt *et al*. 2016) as is its centrality in developing decisional capital (Hargreaves and Fullan 2012).

The need to develop a more sympathetic and supportive culture around team teaching in schools was asserted by many participants, with a specific focus on the role of management and leadership in facilitating this through timetabling and the provision of resources. Participants reported feeling unsupported by school management, 'it was very much sink or swim', with the onus on teachers to make the pairings work. The critical role of leadership and management has also been highlighted in other research (Jang 2006, Carter *et al*. 2009, Friend and Cook 2010). One of the key considerations advocated by teachers for school leadership, resonating with the research of Krammer *et al*. (2018), related to the importance of teacher compatibility and the need for some systematic way for appropriate pairings of teachers to be developed.

The lack of provision for professional development and professional support in team teaching was also cited as a major challenge. Participants reported a fear of the unknown, having 'no point of reference' and being daunted because 'I have no experience of team teaching and have never seen team teaching in practice.' There was a call for the sharing of 'examples from schools who (sic) have adopted the team teaching approach' so that teachers could witness the characteristics of effective practice. This is not surprising considering the low level of opportunity and provision participants

in this research reported experiencing both at ITE and post-qualification, and the wider research on opportunities for teacher collaboration in the Irish context (Hogan *et al.* 2007, Gilleece *et al.* 2009, Gleeson 2010, O'Sullivan 2011).

Conclusions and implications

Professional development and team teaching are complex concepts, the understanding and operationalisation of which vary across contexts and jurisdictions. This paper has explored and reported on the policy, research and practice context for using team teaching as a form of teacher professional development in post-primary schools in Ireland. The results of this study have implications for future trajectories not only in Ireland but internationally as education systems more towards more collaborative teaching approaches and informal, school-based teacher professional development.

A number of key insights emerge from this study. First, team teaching has the potential to provide a context for powerful teacher professional development through its capacity to be experiential, collaborative, sustained, personalised, holistic, contextualised, socially situated, enquiry-based and related to classroom practice. These characteristics resonate very well with research on effective teacher professional development (Darling-Hammond and McLaughlin 1995, Guskey 2000, Darling-Hammond and Richardson 2009, Hoekstra *et al.* 2009, McMillan *et al.* 2016). Teachers in this study were overwhelmingly positive in relation to the professional learning that emerged from their engagement in team teaching. This related to an enhanced sense of teacher self-efficacy, enabling the use of a wider range of methods and pedagogical practices and more collaborative relationships and cultures in schools. Further provision for informal, collaborative and school-based teacher professional development must become embedded in national structures in order to harness the professional capital (Hargreaves and Fullan 2012) of the teaching profession at an individual and collective level. The potential of PLCs (Stoll *et al.* 2006) of team teachers should be further exploited in unleashing and sharing the learning and expertise within and among schools.

Second, there is a need to be clear on the rationale for team teaching in schools. Given the policy context, team teaching is being used for a multiplicity of purposes in schools, including the creation of more inclusive learning environments (DES 2017a), to promote school improvement (DES 2016) as well as for teacher professional development (Teaching Council 2016). Multiple policy agendas and a disparity between policy and support for its enactment emerged as a cause of concern and anxiety for many teachers who are endeavouring to engage in more collaborative professional practice. Policy must be accompanied by systematic and sustained supports if it is to become a reality in schools.

Third, while structural issues have been identified as important within the literature (Avalos 2011, Bubb and Earley 2013), relational and affective dimensions were reported by teachers in this study to be highly significant in terms of their influence on the potential of using team teaching as a form of professional development. Providing conditions to build a sense of 'team' is critical so that shared vision, parity of esteem, collective responsibility, mutual respect and clarity around roles are all nurtured within the team teaching relationship (Pratt 2014, Fluijt *et al.* 2016). Teacher compatibility emerged as a very strong concern in this research and teachers in this study reported the necessity for teacher input in the selection of team teaching pairings or the structured provision of supports to enhance compatibility, an issue also prevalent in the literature (Scruggs *et al.* 2007, Krammer *et al.* 2018).

Fourth, a move towards a more collaborative teaching style challenges the prevailing identity of many teachers and the culture of many schools, which have been characterised by more insulated and individualised approaches (Gilleece *et al.* 2009, O'Sullivan 2011). In this context, the potential of team teaching as a form of school-based professional development can only be realised by systematic and sustained national and whole-school approaches and structural supports to enable

shifts from a predominant culture of individual practice to a more collaborative pedagogical culture. The transformative potential of such school-based professional development and learning is evident in the literature (Appova and Arbaugh 2018, Fraser *et al.* 2007, De Paor 2016). Parker *et al.* (2016) advocate that successful professional development requires critical dialogue, the public sharing of work and the formation of communities of learners, characteristics that arguably have not been widespread in practice in Ireland. Providing the conditions for review, discussion and sense making, arguably the most fruitful context for professional sharing and learning, must become a feature of national and school-based resourcing. Valuing and leading such pedagogical changes is a key responsibility of school management and leadership.

In Ireland, *Cosán*, the aforementioned national framework for teacher learning (Teaching Council 2016), provides a new context and impetus for conceptualising teacher professional development. Within this framework, myriad processes of formal and informal learning are recognised and promote the development of teachers as autonomous learners. These align with the research in terms of effective professional development (Darling-Hammond and McLaughlin 1995, Stoll *et al.* 2006, Darling-Hammond and Richardson 2009). *Cosán* also provides for collective and collaborative reflection, shared thinking and meaning making about professional experiences, and supports the development of professional capital through such interactions and professional conversations. In the duration of this research project, participants reported the benefits of articulating and discussing their practice with colleagues and the improved self-efficacy they experienced in their professional practice, enhancing their decisional and professional capital. Team teaching has the potential to upscale these collaborative interactions at a school and national level and create PLCs within and across schools. Such a development sounds notes of optimism for the future professional development of teachers at both an individual and collective level in Ireland and beyond.

Notes

1. The PDST is a national support service under the auspices of the Department of Education and Skills (DES), the remit of which is to support professional learning opportunities for teachers and school leaders in a range of pedagogical, curricular and educational areas.
2. The author would like to acknowledge the role of Ms Angela Rickard, Maynooth University, and the PDST team in the design and delivery of the research project.
3. *Droichead* is the Gaelic word for 'bridge'.
4. *Cosán* is the Gaelic word for pathway.

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