Exploring the Impact of a Professional Learning Community on Teacher Professional Learning for Inclusive Practice

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Declaration

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor of Education is entirely my own work, and that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

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List of Abbreviations

ASD Autistic Spectrum Disorder

CPD Continuing Professional Development

DES Department of Education and Skills

DfES Department for Education and Skills (UK)

EASNIE European Agency for Special Needs and Inclusive Education

(formerly European Agency for Disability and Special Needs

Education)

EAL English as an Additional Language

EFA Education for All

EPSEN Education of Persons with Special Education Needs

EU European Union

GERM Global Education Reform Movement

IEF Inclusive Education Framework

IPP Inclusive Practice Project

IPAA Inclusive Pedagogical Approach in Action

ISS Inclusion Support Service

IRIS Inclusive Research in Irish Schools

NBSS National Behaviour Support Service

NCCA National Council for Curriculum and Assessment

NCSE National Council for Special Education

OECD Organisation for Economic Co-operation and Development

PD Professional Development

PDST Professional Development Service for Teachers

PISA Programme for International Student Assessment

PLC Professional Learning Community

SACIE-R Sentiments, Attitudes and Concerns about Inclusive Education

Revised

SEN Special Educational Needs

SERC Special Education Review Committee

SESS Special Education Support Service

SSE School Self-Evaluation

TEIP Teacher Efficacy for Inclusive Practice

UDL Universal Design for Learning

UN United Nations

UNESCO United Nations Educational, Scientific and Cultural Organisation

Abstract

Exploring the Impact of a Professional Learning Community on Teacher Professional Learning for Inclusive Practice

Aoife Brennan

In the Irish context, inclusive education has experienced transformative policy development in recent years, stemming from the international inclusion focus. The commitment to inclusive education is espoused in the Education for Persons with Special Educational Needs Act (EPSEN) (2004) and the plethora of legislation and policy that followed. However, at the coalface, the implementation of inclusive practice continues to be met with myriad challenges. Professional development (PD) is necessary to move inclusive education forward, yet PD has been inconsistent in this area. This inconsistency has resulted in a lack of teacher confidence and competence in enacting inclusive practice. Furthermore, transmissive models of PD are prevalent in the Irish context, despite demonstrating little impact on teacher learning. Transformative models of PD such as professional learning communities (PLCs) hold promise for whole-school reform. However, this form of PD remains under-utilised for developing inclusive practice.

This study addresses the research gap relating to PLCs for inclusive practice. It is underpinned by a theoretical framework which combines an inclusive pedagogical approach (Florian, 2014) and key principles of effective PD arising from the literature, which informed the development of a PLC for inclusive practice in a primary school. Furthermore, impact of engagement in the PLC on teachers' professional practice was explored using an evidence-based evaluation framework. This research adopted a predominantly qualitative case-study design which employed interviews, observation of practice, a researcher reflexive journal and pre-and post-study scales. A multi-layered approach to data analysis revealed key research findings relating to teacher professional learning for inclusive practice.

The findings evidence that a PLC, underpinned by an inclusive pedagogical approach, positively impacted teacher attitudes and beliefs, and teacher efficacy, towards inclusive practice. In addition, the PLC had a positive impact on teachers' individual and collaborative practice. The findings suggest that inclusive practice can be effectively developed through an on-site PLC that is characterised by critical dialogue and public sharing of work. Recommendations proffer design principles to underpin the development of PLCs for inclusive practice. These include systemic factors which were evidenced as key to supporting the PD initiative, namely: leadership for inclusion, cultivation of a safe and supportive space, external/internal support, and teacher agency. Such factors are important considerations at the macro and micro levels of the education system in the conceptualisation of PD to support teacher professional learning for inclusive practice.

Chapter One: Introduction

This study examines the development of a professional learning community (PLC) to support teacher professional learning for inclusive practice in a primary school. The research is situated in a developing policy context that continues to encounter complications at many levels. While legislation advocating inclusion in schools is now common across the developed world, the implementation of such continues to be met with myriad barriers. In Ireland, the diversity of learners has dramatically increased due to policy and legislation reform over the past eighteen years, proving a challenge to the development of inclusive schools (Travers et al., 2010). The development of inclusive practice depends greatly on teachers' attitudes, knowledge, skills, capacity and understanding (Hornby, 2010; Horne & Timmons, 2009). However, recent longitudinal research on the experiences and outcomes of students with special educational needs (SEN) in Irish schools (n=24) reported that many teachers are not equipped with the knowledge, skills, and understanding to create inclusive learning environments (Rose, Shevlin, Winter & O'Raw, 2015). Teachers need support in developing inclusive practice to meet the diverse needs of all learners, yet there is a paucity of such support in the Irish context (O'Gorman & Drudy, 2010; Rose et al., 2015; Travers et al., 2010). This chapter sets the context of the challenges inhibiting progress in developing inclusive education. It begins with a discussion of the terminology of inclusion, inclusive education, and inclusive practice. Subsequently, the chapter explores the national and international policy milieu in the field of inclusive education. Following this, the rationale for this research and the research aims underpinning the study are presented. Finally, the chapter concludes with an overview of how the thesis is structured and presented.

Defining Inclusion, Inclusive Education, and Inclusive Practice

The development of inclusion continues to be pervaded by onerous debate around consensus on a definition (Berlach & Chambers, 2011). This contestation arguably arises from the variety of factors that affect inclusion as indicated by Thomas and Vaughan: "Inclusion, it transpires, represents the confluence of several streams of thought, social, political as well as educational (2004, p. 1). In this section, the terminology associated with inclusion is delineated.

Inclusion

Initial policy in inclusive education in the international and local contexts advocated 'integration', which in its most basic terms referred to locating pupils with SEN in a mainstream setting (Pijl, Meijer & Hegarty, 1997). However, the term 'inclusion' is now favoured in education policy, as it has a much broader implication referring to the full and meaningful participation of every learner in the school environment. Furthermore, the concept of inclusive education has moved beyond solely concerning persons with SEN to extend to all persons at risk of marginalisation or exclusion in society (Ainscow, Booth & Dyson, 2006). In the Irish context, the policy focus is on including students with SEN in the mainstream setting, as evidenced in the Education for Persons with Special Educational Needs Act (EPSEN) (Government of Ireland, 2004). The EPSEN act defines SEN as

a restriction in the capacity of the person to participate in and benefit from education on account of an enduring physical, sensory, mental health or learning disability, or any other condition which results in a person learning differently from a person without that condition and cognate words shall be construed accordingly (Government of Ireland, 2004, p. 6).

While this act is a positive policy development, confining the concept of inclusion to including pupils with SEN serves to prohibit its development (Mac Ruairc, 2013). Furthermore, use of the term 'special education' is contested. The debate around

whether special education hinders or helps the cause of equality of access to appropriate education is noted in the literature (Artiles, 1998; Florian, 2014: Norwich, 2008).

Florian (2014) contends that the provision of 'special' education often serves to marginalise the very students it is provided for, which has "paradoxically created problems of equality within education" (p. 9). However, arguably special education policy serves as guidance for provision of support and resources and thus mostly ensures that those with SEN access the education system. The concept of inclusion adopted in this study is a broader one that emphasises the inclusion of all learners, as advocated by Slee (2001):

I would argue that inclusive education is not about special educational needs, it is about all students. It asks direct questions: Who's in? and who's out? The answers find their sharpest definition along the lines of class, 'race', ethnicity and language, disability, gender and sexuality and geographic location (pp.116-117).

Ainscow et al. (2006) define inclusion along similar lines to Slee, as "embodying particular values concerned with all learners and with overcoming barriers to all forms of marginalisation, exclusion and underachievement" (p. 5). Similarly, the United Nations Educational Scientific and Cultural Organisation (UNESCO) states that "inclusion is seen as a process of addressing and responding to the diversity of needs of all learners though increasing participation in learning, cultures, and communities, and reducing exclusion within and from education" (2005, p. 13). The range of definitions indicate that inclusion may look different depending on different school or policy contexts (Florian, 2005). However, despite varying definitions, developing inclusion is a process that requires considerable commitment and effort as noted by Ainscow et al. (2006): "inclusive practice requires significant changes to be made to the content, delivery and organisation of mainstream programmes and is a whole school endeavour

which aims to accommodate the learning needs of all students" (p. 2). The challenge for educators is to identify classroom practice that can encompass the participation and learning of all children and how can such practice be developed.

Inclusive pedagogy

Florian and Black-Hawkins (2011) acknowledge the difficulty in differentiating between inclusive pedagogy, inclusive education, and inclusive practice owing to the wide use of the term 'inclusive' in education and its many interpretations. They refer to Alexander's definition of pedagogy as a focus on "the act of teaching and its attendant discourse" (2004, p. 11) and distinguish between inclusive education and inclusive practice. Florian and Black-Hawkins (2011) acknowledge the broad acceptance of inclusive education as a process of "increasing participation and decreasing exclusion from the culture, community, and curricula of mainstream schools" (Booth & Ainscow, 2002, p. 3). However, these processes may differ depending on the policy focus or the school, and there is little knowledge about what actually happens at the practice level in the classroom. Hence, inclusive practice or the actions undertaken by staff in schools to enact the concept of inclusion (Florian, 2009) can vary greatly (Florian & Black-Hawkins, 2011). In defining inclusive pedagogy, Florian and Black-Hawkins (2011) draw on the work of Hart, Dixon, Drummond and McIntryre (2004) who advocate the concept of transformability. This refers to the idea that a child's capacity to learn is not static and cannot be pre-determined, but rather can be transformed by the actions undertaken by the teacher in developing teaching and learning. Florian reiterates this position in a call for a "shift in thinking" away from education for "some" and 'most" learners, to education for all (2014, p. 21). Inclusive pedagogy therefore encompasses extending what is generally available, to all learners in the classroom, rather than differentiating for some (Florian, 2014). According to Rogers (1993) "schools that most readily adopt the concept of inclusion are generally those that already embrace instructional practices which are designed to provide challenging learning environments to children with very diverse learning characteristics" (p. 4). Indeed, research has demonstrated that teachers who are most effective in teaching students with SEN are also the most effective teachers for all (McGhie-Richmond, Underwood & Jordan, 2007). Taking this into consideration in the context of this study, inclusive practice is considered to embody instructional practices that meet the needs of all learners in the classroom, including those with SEN. While a broad view of inclusion is adopted by the researcher, the field of research in the wider context is expansive and diverse.

Therefore, for the purposes of this study, the inclusion of pupils with SEN will be the predominant area of focus.

The Inclusion Trajectory: The Historical Context

The last two decades have marked a laborious but decisive shift in inclusive education policy in the Irish context, stemming from the international focus on inclusion. Little progression was made regarding inclusive education in Ireland until the 1990s. At this juncture, transnational organisations such as UNESCO the United Nations (UN) and the Organisation for Economic Co-operation and Development (OECD) were becoming increasingly influential on Irish education (Winter & O'Raw, 2010). Towards the end of the 1980s, the global policy field was promoting inclusive education founded on a human rights based model. The rights of children with disabilities to appropriate high-quality education suited to their learning needs, was included in the 1989 UN Convention on the Rights of the Child. While Ireland ratified this convention in 1992, there was an evident gap between what the government was promising and what it was providing (Griffin & Shevlin, 2007). Further international pressure came in the form of the Education for All movement (EFA) launched by

UNESCO in 1990, which called upon member states to support an inclusive approach to education. The subsequent Salamanca Statement and Framework for Action urged commitment to EFA across member states (UNESCO, 1994). Ninety-two countries, including Ireland, subscribed to the Salamanca Statement which called on governments to formulate policies that promote inclusive education (UNESCO, 1994). Since its launch, the Salamanca Statement has significantly accelerated the global inclusion trajectory, as is evident from the convergence of international policy in relation to inclusion. In the Irish context, the government commissioned Special Education Review Committee (SERC) report (Government of Ireland, 1993) provided the much needed impetus for the advancement of inclusive education in Ireland. This report was distinctly instrumental in the promotion of mainstream schooling for children with SEN in Department of Education and Science (DES) policy (Shevlin, Kenny & Loxley, 2008).

The SERC report advocated a continuum of provision for pupils with SEN favouring "as much integration as is appropriate and feasible with as little segregation as is necessary" (Government of Ireland, 1993, p. 22). However, progress remained slow which resulted in litigation against the state. The O' Donoghue (Supreme Court of Ireland, 1996) and Sinnott (Supreme Court of Ireland, 2001) cases copper fastened the state's responsibility to provide the adaptation of teaching and curriculum for the appropriate education of children with SEN (Shevlin et al., 2008). Arising from the O' Donoghue case, the State acknowledged that all children are educable and this led to the provision of the right to an appropriate education in the Education Act (Government of Ireland, 1998). The Education Act paved the way for inclusive education by legislating for an appropriate education for every child "including children who have a disability or who have other special educational needs" (Government of Ireland, 1998, section 6), as

well as equality of access, and the right of parents to send their child to a school of their choice. However, it could be argued that there are limitations to this act, as the inclusion of children with SEN is dependent upon "having regard to the resources available" (Government of Ireland, 1998, section 6) which resulted in some schools drafting admissions policies which stipulated that resources for pupils with SEN must be in place before enrolment. The Equal Status Act (Government of Ireland, 2000) sought to address this anomaly by prohibiting schools from any form of discrimination in their admissions policies. Despite this stipulation, there is still evidence of exclusionary clauses in school policies that limit access for students with complex SEN (Rose et al., 2015).

The subsequent Education for Persons with Special Educational Needs Act (EPSEN) (Government of Ireland, 2004) enshrines the right of children with SEN to be "educated in an inclusive environment with children who do not have such needs" (p. 5). This act marked a pivotal point in the development of inclusive education in Ireland, as it provided the legislative framework for policy formation in this area (National Council for Special Education, (NCSE), 2013). While the act provided for the right of children with SEN to be educated alongside their peers in an inclusive environment, there are caveats to this provision if it is determined that the inclusion is not in the best interest of the child or if the inclusion of the pupil with SEN hinders the education of other children within the learning environment. Despite these caveats having the potential to exclude pupils with SEN, the legislation is a positive advancement in inclusive education (Kinsella & Senior, 2008). However, full implementation of the EPSEN act has not yet been realised due to economic factors, which has negatively impacted policy development to support pupils with SEN and inclusion at school level (Rose et al., 2015).

The Current Policy Context

The NCSE was established under the EPSEN Act in 2005, with responsibility for coordinating the delivery of education to persons with SEN, in addition to providing policy advice on best practice in special education based on national and international research (Griffin & Shevlin, 2007). After the introduction of the EPSEN Act (2004) it was clear that schools in the Irish context needed support in implementing inclusive structures. This echoed an international concern regarding an absence of guidance for governments in the implementation of EFA (UNESCO, 2005). The Guidelines for Inclusion document was therefore published to assist policy makers to ensure that the global commitment to inclusion is embodied in national plans for education (UNESCO, 2005). The guidelines outline four conceptual elements for developing inclusive education:

inclusion is a process, inclusion is concerned with the identification and removal of barriers, inclusion is about the presence, participation and achievement of all pupils and inclusion invokes a particular emphasis on those groups of learners who may be at risk of marginalisation (pp. 15-16).

This document impacted the development of the Inclusive Education Framework (IEF) (NCSE, 2011) which is a tool to assist post-primary, primary, and special schools in evaluating and developing their inclusive practices in relation to pupils with SEN. An extensive literature review of inclusive education was commissioned to inform the work of the NCSE, and subsequently informed the development of the IEF (Winter & O' Raw, 2010). There is no obligation on schools to engage in the IEF but they are encouraged to use it to assess the quality of current inclusive practices and to determine areas for development and improvement (NCSE, 2011). Arguably, the endorsement of the IEF (NCSE, 2011) to support the implementation of inclusive practice, has been overshadowed by the development of other education policy initiatives such as the

Literacy and Numeracy Strategy (DES, 2011), which requires schools to engage in School Self-Evaluation (SSE) (DES, 2012). This obligation on schools was introduced one year after the publication of the IEF and therefore the capacity of schools to meaningfully engage in both reflective evaluation processes at the same time comes into question. Schools were initially required to carry out self-evaluation in literacy, numeracy and one other subject area (DES, 2012). While the SSE process provides an ideal opportunity to use the IEF for school improvement in inclusive education, this opportunity does not appear to be advocated by education policy. SSE updates from the DES Inspectorate have communicated that the third subject area does not necessarily have to be a discrete subject but an area across curricular subjects, for example assessment in music and visual arts (DES, 2015a). Consequently, schools could have chosen inclusion as the third area for self-evaluation but this was not explicitly communicated or recommended to schools by the DES nor the NCSE. Furthermore, Gaelscoileanna and Scoileanna sa Ghaeltacht did not have a choice in the third curriculum area for SSE as they were obliged to evaluate teaching and learning in literacy, numeracy and Gaeilge.

Schools are required to carry out a second cycle of SSE from 2016 to 2020 which focuses on two to four curriculum areas or aspects of teaching and learning (DES, 2016a). Again, this presents an opportunity where inclusion or inclusive practice could be evaluated and developed using the IEF. Engagement in SSE is suggested as useful for evaluating the allocation of teaching resources to pupils with SEN (DES, 2016b; DES, 2017a). However, it is likely that the obligation on schools to engage in SSE which had an initial focus on literacy and numeracy, has negated the potential impact of the IEF and is resulting in a lost opportunity for primary schools to evaluate

and develop inclusive practice, reflecting an example of the wide ranging factors than can impact on the development of inclusion.

Another challenge to inclusion in Irish schools is the dominance of the deficit model of disability in the policy context. The current model of allocation of teaching resources for pupils with SEN is based on a deficit view of learning and is therefore inequitable. Resources in this model depend on diagnoses, yet access to assessment is limited and in cases where it is feasible, assessments are paid for privately by parents. This has created an unequal landscape where there is a risk of over reliance on diagnosis for resource allocation (NCSE, 2014). A revised model of allocation was proffered by the NCSE (2014) and will commence from September 2017 (DES, 2017b). Teaching resources for pupils with SEN will be allocated based on the school educational profile which comprises of three elements. The highest weighting for resource allocation is assigned to the first element i.e. the number of students with complex SEN. The second highest weighting is assigned to the number of students performing at or below a STen of four in standardised test scores, and the third weighting is assigned to the school context (gender, location, and educational disadvantage). Each school will receive a baseline component which is not proposed as a replacement of the current general allocation model but "is an allocation to ensure that every school is an inclusive school and able to enroll and support students who may have additional needs." (NCSE, 2014, p. 7). Resource and learning support teaching posts will be merged into special education teacher posts (DES, 2017b).

Due to concerns from stakeholders regarding the establishment of the new model, a pilot phase involving 47 mainstream schools (28 primary, 19 post-primary) was undertaken in the 2015/16 school year which was then evaluated by the DES Inspectorate (DES, 2016b). The pilot study reported that the model placed an onus on

teacher collaboration and reflection relating to meeting the needs of students with SEN, in addition to flexibility in providing a range of models of support including early interventions and targeted interventions to address priority learning needs (DES, 2016b). Some concerns were raised in the piloting process regarding the capacity of schools to meet the needs of all learners in cases where there is a reduction in resources. Furthermore, the potentially increased workload on class or subject teachers to improve differentiation for students with SEN was highlighted by schools. The DES Inspectorate dismiss the latter concern, referring to differentiation is a key component of teaching that is not exclusive to this model of allocation. Yet, the evaluation acknowledged that schools in the pilot study received a high level of support in terms of "differentiation, target setting and monitoring of students' progress" (DES, 2016b, p. 32) and it is noted that the provision of such support to all schools presents a considerable challenge. Furthermore, it is recommended that the definition of 'complex needs' is established owing to its centrality to the allocation of resources in the new model.

There was no reduction of resources in any school in the pilot study, therefore the model was not tested in this respect which has implications for its implementation (DES, 2016b). The NCSE has highlighted professional development (PD) for teachers as critical to the successful implementation of the new model of allocation (NCSE, 2014). This is echoed in the pilot review which recommends a national PD programme to support all teachers to develop inclusive practice in the context of the new model of allocation (DES, 2016b). Therefore, is likely that schools will require a substantial level of support in developing whole-school inclusive approaches to meeting the needs of learners with SEN. So far guidelines have been published to support the implementation of the model (DES, 2017a) but it is unlikely that these will be sufficient to support the development of inclusive practice for all learners. The newly formed NCSE Support

Service (an amalgamation of The Special Educational Support Service (SESS), The Visiting Teacher Service, and the National Behaviour Support Service (NBSS) under the NCSE) will provide PD and support to schools in meeting the needs of pupils with SEN and the introduction of the new model of allocation (NCSE, 2017). However, in consideration of the principle to develop "truly inclusive schools" as outlined in guidelines for the implementation of the new model of allocation (DES, 2017a, p. 5), it is important that PD in this context places an onus on developing teacher capacity to provide inclusive learning environments for all.

Rationale for the study

Personal Rationale

In my experience of teaching in a mainstream urban primary setting I have taught a range of classes, with my most recent teaching experience being in a learning support/resource capacity. While working in this role I completed the Postgraduate Diploma in Learning Support and SEN which heightened my interest in inclusive education. I became acutely aware of the barriers and challenges to developing inclusion in the primary school and developed an interest in collaborating with my colleagues in providing inclusive education. Prior to beginning my thesis, I was seconded to the Professional Development Service for Teachers (PDST). In this role, I provided PD to teachers, specifically in literacy, but also in effective teaching methodologies across the curriculum. I was restricted to providing models of PD that are regarded in the literature as having little impact on teacher learning. The challenges that teachers face in providing appropriate education for all became even more apparent in that role and this further deepened my interest in developing teacher capacity to create inclusive learning environments. My doctoral journey afforded me the

opportunity to explore the literature in this area and to subsequently undertake research to support teacher learning for inclusive practice.

Policy Rationale

Irish policy relating to inclusion is evidently in a "transitional phase" as legislation for inclusive education has not been fully enacted in schools (Shevlin, Winter & Flynn, 2013, p. 131). Education policy has certainly facilitated the implementation of inclusive education to an extent. However, on examination, current policy is not without fault and somewhat contradictory in nature. The failure to fully implement the EPSEN Act (2004) has negatively impacted on policy development on inclusion within schools as they hesitate to progress during national policy uncertainty (Rose et al., 2015). In many cases, enrolment policies have been found to contain exclusionary clauses pertaining to the enrolment of a child with SEN being dependent upon resources (Rose et al.). The Draft General Scheme of an Education (Admission to Schools) Bill (Government of Ireland, 2013, pp. 6-7) was developed in response to exclusionary enrolment policies and should ensure more inclusive enrolment policies if, and when, implemented. Better Outcomes, Brighter Futures: The National Policy Framework for Children and Young People 2014-2020 outlines the government commitment to:

Prepare and implement a plan, guided by the NCSE policy advice, on how aspects of EPSEN can be implemented, including prioritising access to an individual education plan and implementing the recommendations of the NCSE Working Group on a new resource allocation model for schools (Government of Ireland, 2014, p. 71).

However, this plan has not materialised, and twelve years since the enactment of the EPSEN Act (2004) it remains partially implemented, resulting in a lack of clarity of

policy on the entitlement of children with SEN to education (Children's Rights Alliance, 2016).

The National Literacy and Numeracy Strategy (DES, 2011) outlines objectives to develop inclusive education but has a predominantly narrow focus on the attainment of pupils in two particular areas of education. This policy separates objectives for improving literacy and numeracy outcomes for children with SEN, English as an additional language (EAL), those from disadvantaged backgrounds (including the traveller community) and early school leavers, which conflicts with the inclusive education ideal of meeting the needs of all learners in the same environment.

Furthermore, this policy excludes pupils with SEN from norm-referenced standardised testing in literacy and numeracy (Douglas et al., 2012). Inclusive assessment assumes that all children benefit from accessible and appropriate assessments across the full breadth of the curriculum, which includes curriculum areas especially relevant for pupils with SEN (Douglas et al.). This policy could negatively impact on the development of inclusion, as teachers are pressured to produce academic results yet have no appropriate standardised literacy and numeracy assessment tools for pupils with SEN.

The Literacy and Numeracy Strategy is concerned with specific outcomes, measurability and accountability and requires schools to engage in SSE (DES, 2012) which necessitates increased administration, compilation and recording of standardised assessment data for comparability purposes. This policy mirrors global reform movements based on achievement standards which "has intentionally narrowed the breadth and scope of general education in ways that might be seen as less accommodating to students who find school learning difficult" (McLaughlin & Dyson, 2014, p. 907). In a climate of rising accountability and the perception of education as a

marketable commodity, educational policy does not prioritise learners outside of the 'normative centre' (Florian, 2014; Gallagher, 2014). Furthermore, the introduction of legislation relating to inclusion, while welcomed, is enacted in a 'top down' approach which is often ineffective in bringing about change. Educational policy initiatives that do not incorporate bottom-up support will fail to garner support from teachers who are expected to implement new policies as they are 'passed down' to schools (Fullan, 1991). Ultimately policy initiatives will either succeed or fail depending on school personnel who act as the 'street-level bureaucrats' (Lipsky & Hill, 1993) who are often not involved in the decision-making process. In addition, policymakers can be removed from the reality of the working environment of teachers and overlook potential obstacles to implementation (Fullan, 1991). Therefore, in order to develop inclusive education there should be an onus on partnership at all levels, where those who implement policies are listened to and supported in developing inclusion in the school context (Thomas, Walker & Webb, 2004).

Many research studies have indicated a lack of confidence and competence among practicing teachers in relation to implementing effective teaching and learning strategies for all pupils in the classroom, both domestically and abroad (Farrell, Dyson, Polat, Hutcheson & Gallannaugh, 2007; Florian, 2014; Forlin, Keen & Barrett, 2008, Rose et al., 2015; Shevlin, et al, 2013; Travers et al., 2010). Research on the PD needs of teachers in Irish schools (n=344), highlighted an inadequacy in developing teacher capacity to implement effective teaching and learning strategies for all pupils in the classroom (O' Gorman & Drudy, 2010). Reasons for this include shortcomings in initial teacher education in the preparation of teachers for diverse classrooms (O' Donnell, 2012; O'Toole & Burke, 2013), and the inadequate provision of continuous professional development (CPD) in inclusive education (O' Gorman & Drudy, 2010;

Rose et al, 2015; Shevlin et al., 2008; Shevlin et al, 2013; Travers et al., 2010). Furthermore, the dominant deficit model of special education perpetuates the notion that a student identified as having a learning disability needs something different to the education provided in regular classrooms (Florian, 2014). This can result in teachers feeling unprepared to teach students with disabilities as they feel that they are unqualified to teach such students (Florian, 2014).

The dearth of data relating to the educational outcomes for students with SEN is also problematic (Cosgrove et al., 2014). Available data suggest that children with SEN under achieve in reading and mathematics in comparison to their peers without SEN, although there are variations across categories of SEN. However, teachers have lower expectations for children with SEN in general which could negatively impact student achievement (Cosgrove et al., 2014). Despite a lack of PD for inclusive practice, commitment to teacher PD in Irish policy context is evident in the Literacy and Numeracy Strategy (DES, 2011). While the strategy was launched in a time of economic uncertainty it states that "considerable investment continues to be made in initial and continuing professional development (CPD) for teachers in the area of special needs education" (p. 66). Indeed, the initial teacher education courses have been extended by one year at undergraduate level and six months at postgraduate level and include school placement experiences in a range of contexts, including a special education setting (Teaching Council, 2011a). However, there has been no increase in allocation for the DES funded postgraduate diploma for teachers working in learning support/resource roles or special education settings, and CPD for mainstream teachers remains fragmented in this area. In the Irish context, teachers have shown to accept the principle of inclusion in a general sense however, hesitancy regarding the practical implementation of inclusion is palpable (Shevlin et al., 2013). Following their

qualitative study of teacher perceptions of opportunities and constraints in developing inclusive practice in seven schools (four primary, three post-primary), Shevlin et al. (2013) determined that support for the implementation of inclusive practice and the cultivation of professional learning opportunities within schools is crucial. Furthermore, the NCSE commissioned Inclusive Research in Irish Schools (Project IRIS) (Rose et al., 2015) revealed that many teachers felt that they had inadequate knowledge and skills to provide effective inclusive education and demonstrated limited knowledge of differentiation methods and specific teaching approaches. While school policies generally promoted inclusive education, there was an over reliance on withdrawal support and while this support was usually of high quality, it resulted in students missing instruction in other subject areas, as well as learning with their peers (Rose et al., 2015). The report calls for structured PD for effective inclusive practice for all teachers and appropriate PD for members of SEN teams "as a matter of urgency" (2015, p. 10). However, it is important that the conceptualisation of appropriate PD moves beyond previous national PD efforts in the Irish context, which did not result in significant teacher change (Murchan, Loxley & Johnston, 2009).

Despite continued investment in teacher PD, there is limited evidence in relation to its tangible impact on teachers' practices (Baker, Gerston, Dimino & Griffiths, 2004; Priestley, Miller, Barrett & Wallace, 2011; King, 2014). Schools are subject to constant changes and innovations which more often fall by the wayside rather than transform practice (Cuban, 1988; Fullan, 1999; Sahlberg, 2012). In order to bring about real change in teaching and learning, or 'transformative' teacher learning, Kennedy (2014) advocates developing professional learning through collaborative professional inquiry. PLCs have shown potential to act as transformative modes of PD that can build teacher capacity for sustainable improvement (Fraser, Kennedy, Reid & McKinney, 2007;

Kennedy, 2014; Stoll, Bolam, McMahon, Wallace & Thomas, 2006). A PLC involves "a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning oriented, growth-promoting way" (Stoll et al., 2006, p. 223). The trend for developing PLCs for school improvement in the US during the 1980s and later in in the European context, did not extend to using PLCs to develop inclusive school practice (Pugach & Blanton, 2014). This lack of attention to PLCs for inclusive education in policy discourse is myopic considering that collaborative PD holds promise for implementing whole-school reform (Pugach & Blanton, 2014). The value of such learning is noted in research on inclusion in the Irish context which advocates "new forms of teacher learning and teacher learning communities to be supported as vehicles for promoting inclusive practice" (Travers et al., 2010, p. 241). Considering the advocacy of increased PD for teachers to develop inclusive practice (Cosgrove et al., 2012; Rose et al., 2015; Shevlin et al., 2013; Travers et al., 2010) and identified models of effective PD (Fraser et al., 2007; Harris & Jones, 2010; Kennedy, 2014; Stoll et al., 2006), this study explores the potential of a PLC to develop teacher learning for inclusive practice, within a primary school setting.

Research Aims

In seeking to address the research gap relating to supporting the implementation of inclusive practice, this study aims to develop teacher professional learning in relation to inclusive practice in the primary classroom through a PLC. This research encompasses a predominantly qualitative single-site case study design with multiple methods of data collection. A predominantly qualitative research design was considered most appropriate as qualitative research is exploratory and descriptive, while also valuing the research setting, the context, and the participants (Marshall & Rossman, 2011). Furthermore, qualitative research is interactive in its nature, where the researcher

is involved in the field and engages interactively with the participants (Rossman & Rallis, 2012). Therefore, focusing on a single-site for this research allowed for the collection of in-depth and extensive data. The PLC in this study was planned and evaluated using evidence-based frameworks (King, 2014, 2016) and was underpinned by the inclusive pedagogical approach in action (IPAA) framework (Florian, 2014). The IPAA encompasses three assumptions of inclusive pedagogy: rejecting deterministic beliefs about ability, teachers believing that they are capable of providing education for all learners, and teachers collaborating with others in creative ways. These three assumptions provided discussion points with the participants to reflect on and challenge their own thinking regarding inclusive education and to support the implementation of new practice in the classroom. Inclusive education pertains to meaningful participation in all aspects of the school environment, however it is important to start slow when attempting to implement any change (Fullan, 2001) and therefore the PLC focused on developing inclusive practices in one area of teaching and learning, determined by the participants, to engender teacher agency.

Conclusion

The introductory chapter has outlined the rationale and research aims in relation to this study and has provided a description of the national and international inclusive education policy contexts. Chapter Two, the literature review, explores the pertinent literature relating to inclusive education and professional development. The first part of the chapter explores the barriers and challenges to inclusive education in more detail, specifically regarding teacher beliefs and attitudes, teacher efficacy for inclusive practice, and supporting the development of inclusive practice. Subsequently the chapter discusses teacher professional learning, teacher PD, models of PD, PLCs, and challenges in developing, implementing, and sustaining PLCs. Finally, planning for

PLCs will be explored, as well as evaluation of PD. Chapter Three outlines the methodological approach to this study. Chapter Four reports on the findings of the study, while the discussion of the findings is presented in Chapter Five. This is followed by a conclusion of the study in Chapter Six.

Chapter Two: Literature Review

Introduction

In Chapter One the rationale for exploring the use of a PLC to develop teacher professional learning for inclusive practice was presented. Chapter Two will explore the literature that informed the theoretical framework for this study which includes the Inclusive Pedagogical Approach in Action (IPAA) framework (Florian, 2014), (Appendix A), pertinent literature relating to creating and sustaining effective PLCs (Harris & Jones, 2010; O'Sullivan, 2011; Stoll et al., 2006; Vescio, Ross & Adams, 2008), effective pedagogies for teacher learning (Parker et al., 2016), and key research regarding the planning for and evaluation of PD (King, 2014, 2016). This chapter begins with an exploration of conceptions of difference in the context of inclusive education, followed by discussion of the IPAA, and the development of inclusive pedagogy. Subsequently, teacher beliefs and attitudes towards inclusion, and teacher efficacy and collaboration for inclusive practice, are examined. Models of PD conducive to teacher professional learning are discussed with special attention paid to the PLC model which is employed in this study. Finally, PD frameworks for planning and evaluating professional development (King, 2014, 2016) are described and their relevance to this research is explored and explicated.

Inclusive Education and Conceptions of Difference

Schools must be supported in developing inclusive practices to meet the needs of pupils both with and without SEN, and for the development of an inclusive society (Kinsella & Senior, 2008). However, the development of effective inclusive education necessitates considerable change at the systemic level of the school (Kinsella & Senior). Such change will only occur if personnel are provided with opportunities to discuss and explore the consequences of change on the personal, professional, and organisational

levels (Skrtic, 1995). Failure to do so will inevitably lead to the perception of change as being enforced from management and result in resistance to new approaches and policies (Skrtic). Therefore, inclusive education cannot be developed through top-down policies without bottom-up support from teachers. Such support from teachers will depend upon their own attitudes and beliefs towards inclusive education and so the development of inclusive schools will be contingent on teachers who construct the 'meaning' of inclusion for themselves as part of a culture change in their schools (Clark, Dyson, Millward & Robson, 1999). The development of inclusive education needs to start with the mindset of teachers and schools, challenging the hegemonic assumptions regarding ability, and the development of a sense of responsibility for including all learners (Ainscow, 2014). School leaders must support teachers in this regard by creating the conditions for cultures conducive to inclusive schools (Ainscow & Sandhill, 2010; Mac Ruairc, 2016).

In the Irish context, there is recognition that changes have not sufficiently occurred at the deep structures of the school to bring about change in teacher attitudes, school ethos, culture, and practices that are inclusive of all learners (Kinsella & Senior, 2008). One reason behind this lack of change is attributed to the "entrenched character of the psychological medical model of disability" (McDonnell, 2003, p. 262). In this model learner differences that are outside of the 'norm' are seen as learning deficits that need remediation. This leads to individualising failure within students rather than viewing difficulties in learning as problems for teachers to solve (Mac Ruairc, 2016). This deficit view of differences in learning is influenced by the bell-curve perception of ability, which dominate the education system, particularly in the current policy context of standards and performance indicators (Florian, 2014; Gallagher, 2014). The desire to 'remediate' student' 'disabilities' with the goal of performing at the average level of

their peers is doomed to fail in a system where the normal curve forces students into certain categories and makes it impossible for all students to be 'average' or 'above average' (Gallagher, 2014). This 'bell-curve thinking' "constructs categories of exceptionality by identifying traits and abilities that separate children with disabilities from the general population of students providing a rationale for special education" (Dudley-Marling & Gurn, 2010 p.18). The push to normalise emanates from the desire to preserve the social hierarchy in which competition is valued and results in failure and marginalisation for students who do not perform according to the normative centre (Dudley-Marling & Gurn; Mac Ruairc, 2016). However, the average for a specific group of people cannot be applied to one particular person in that group (Dunlap, 1935).

The unique differences between learners negates the reliability of categories of learning disabilities for determining teaching approaches in the classroom (Florian, 2014; Lewis & Norwich, 2005; Norwich & Lewis, 2007). However, categorisation becomes powerful in terms of how resources are allocated and can lead to entrenched perceptions of a particular category (Lawson, Boyask & Waite, 2013). In order to examine how teachers' understandings of diversity can be reconciled with policy Lawson et al. (2013) consider conceptual frameworks relating to (a) understandings of diversity and difference (Paine, 1990) and (b) the conceptualisation of needs (Norwich, 1996). Paine discovered that teachers demonstrated four understandings of difference: individual, categorical, contextual, and pedagogical. Individual difference relates to psychological and biological differences between individuals. Categorical differences relate to categories such as social class, ethnicity, or gender. Contextual differences arise according to social contexts and are viewed as socially constructed. Pedagogical differences occur between learners which teachers must address in their approaches to

teaching and learning (Paine, 1990). Meanwhile, Norwich (1996) identified three types of pedagogic needs: individual, group, and common. Individual needs pertain to learners' unique needs that differ from other children, group needs are needs that are shared with other learners such as 'emotional difficulty' and common needs are needs common to all learners such as the emotional need to belong (Norwich, 1996). Lawson et al. (2013) conclude that individual and categorical views of difference serve to perpetuate the marginalisation of learners deemed as different. Furthermore, the common needs position leads to a homogenised view of difference. The tensions within and between varying views of difference are noted by Minow (1990):

When does treating people differently emphasise their differences and stigmatise or hinder them on that basis? And when does treating people the same becomes insensitive to their difference and likely to stigmatise or hinder them on that basis? If we treat some children differently we may stigmatise and perhaps perpetuate inequalities (p. 20).

Therefore, difference and diversity must be viewed as socially constructed and pedagogically significant (Lawson et al., 2013). A contextual view of difference acknowledges that it is fluid and occurs as a result of interactions, rather than being defined by a category. A pedagogical view of difference acknowledges the implications of difference for teaching and learning. In this conception of difference teachers (a) acknowledge and recognise difference and (b) respond to it in different ways (Lawson, et al., 2013, p. 116). The former requires teachers to adapt their pedagogy to include a recognition of the importance of relationships and a consideration of pupil needs as issues for teachers to solve through use of different approaches. The latter necessitates an inclusive pedagogical approach (Florian, 2010) to accommodate all learners (Lawson et al., 2013). Florian advocates moving away from "the idea of special education as a specialised response to individual difficulty, towards one that focuses on

extending what is ordinarily available to everyone in the learning community of the classroom, while acknowledging there will be individual differences" (p. 17). This shift in thinking, towards an inclusive pedagogical approach, has potential to have a transformative impact on special education in adopting the values of "equal opportunity, respect for human dignity, and a belief in the capacity of all people to learn" which are consistent with the Education for All (EFA) movement (Florian, p. 17).

The Inclusive Pedagogical Approach

Research by Florian and Black-Hawkins (2011) on the inclusive practice of teachers in the classroom and their understanding of inclusion, resulted in a refined conception of inclusive pedagogy. This research was conducted in two primary schools in Scotland during a six-month period in which classroom observation and teacher interviews took place. Observations were undertaken using an adapted version of the Framework of Participation (Black-Hawkins, 2010) which incorporated Rouse's (2008) concept of the reciprocal relationship between 'knowing', 'doing', and 'believing' (discussed later in this chapter). Analysis of the findings revealed that inclusive pedagogy is rooted in the concept of teachers extending what is ordinarily available in the mainstream classroom from 'most' and 'some' learners, to 'all' learners. The goal is to provide inclusive classrooms where all learners are meaningfully engaged in learning, without marking any student differently. The research findings identified three assumptions relating to inclusion based on teachers who enacted inclusive practice:

- 1. A shift in focus from one that is concerned with individuals who have been identified as having 'additional needs' to learning for all
- 2. The rejection of deterministic beliefs about ability
- 3. Teachers working with and through other adults (Florian & Black-Hawkins, 2011, p. 818).

These assumptions form the basis of what teachers should know, believe and do in

order to enact inclusive pedagogy. Building on this research, the Inclusive Practice Project (IPP) contributed to the development of the Inclusive Pedagogical Approach in Action (IPAA) framework (Appendix A). The IPP was developed in the University of Aberdeen and funded by the Scottish government to prepare teachers to meet the diversity of learning needs in schools. The IPAA was initially developed to support research on the inclusive practice of teachers who engaged in a one-year Professional Graduate Diploma in Education (PGDE) and is based on the concept of inclusive pedagogy (Florian & Spratt, 2013). The IPAA framework was further developed in a follow-up study on the practices of newly qualified teachers in enacting inclusion, which focused on the practice of seven teacher graduates relating to inclusive pedagogy (Florian & Spratt, 2013). The study revealed that the PGDE course had equipped participants to effectively interrogate their own practice in creating inclusive learning environments rather than offering a 'checklist' for good practice (Florian & Spratt, 2013). Buoyed by the success of the PGDE course, a master's level course on inclusive pedagogy was developed for practicing class and learning support teachers. Participants used the IPAA to analyse their own practice and reported the framework to be useful in understanding the enactment of inclusive pedagogy in the school setting (Spratt & Florian, 2015). The researchers promote the value of the IPAA for researchers in the field and for teachers to examine their own practice. It is advocated that the IPAA is used both within and outside universities in order to support the development of inclusive education in all contexts (Florian & Spratt, 2014). The potential of such will be discussed in the following section.

Developing Inclusive Pedagogy

The development of inclusive pedagogy requires positive beliefs and attitudes towards inclusive education, teacher efficacy for inclusive practice, and effective

teacher collaboration in meeting the needs of all learners (Florian, 2014). These elements will now be discussed in detail.

Teacher Beliefs and Attitudes towards Inclusive Education

Teachers who have positive attitudes towards inclusion are more likely to adapt their teaching to accommodate individual differences (Campbell, Gilmore & Cuskelly, 2003; Forlin, 2010). Furthermore, studies have shown that teachers who engage in PD (long-term) for special needs education are more likely to display positive attitudes towards inclusion over their counterparts (de Boer, Pijl & Minnaert, 2011). De Boer et al. (2011) refer to the definition of Gall, Borg and Gall (1996, p. 273) that attitude is "an individual's viewpoint or disposition towards a particular 'object' (a person, a thing, an idea etc.)". Attitudes are regarded as comprising of cognitive, affective, and behavioural elements (Eagly & Chaiken, 1993; Triandis, 1971). In terms of inclusive education, the cognitive element refers to teacher beliefs or knowledge, feelings about inclusive education depict the affective element, and the behavioural element concerns an individual's predisposition to behave to the attitude in a certain way (de Boer et al., 2011).

In a review of the literature regarding teacher attitudes towards inclusion in the period 1984 – 2000, it was found that positive teacher beliefs and attitudes are key to successfully implementing inclusive practices (Avramidis & Norwich, 2002). At the time of publication of the review, the inclusion policy trajectory was still in its early stages and it is notable that some of the studies refer to 'integration' while others use the term 'inclusion' and some used the terms interchangeably. However, the terms 'integration' and 'inclusion' do not have a common meaning in all contexts (Avramidis & Norwich). On analysis of the body of research, it was concluded that teachers generally hold positive attitudes towards the idea of inclusion but "do not share a 'total

inclusion' approach towards special education provision" (Avramidis & Norwich, 2002, p. 142). Notably, there was a greater level of acceptance among teachers in relation to including students with mild disabilities or mild physical or sensory impairments, than the inclusion of students with more complex needs such as profound visual and hearing impairments and moderate intellectual disability. Furthermore, the research findings suggest that teachers were negative towards including students with complex needs and behavioural difficulties (Avramidis & Norwich, 2002). This finding correlates with the review of twenty-six studies from the 1998-2008 period regarding teacher attitudes towards inclusive education (de Boer et al., 2011). Similar to the findings of Avramidis and Norwich (2002), de Boer et al. (2011) found that teachers reported more negative views towards students with learning disabilities and those with behavioural and emotional disorders, while they were more positive views towards students with physical and sensory impairments. The authors discovered that contrary to reported findings by Avramidis and Norwich (2002), most of the teachers in the studies reported neutral or negative attitudes towards including students with special needs in the mainstream classroom and that no research study reported definitive positive findings (de Boer et al., 2011). An increase in the number of students with special educational needs in mainstream classrooms during this timeframe (Ware et al., 2009) and expanding teacher workloads could explain this disparity. A number of variables were found to impact to teachers' attitudes which correlated with the findings of Avramidis and Norwich (2002) including training in inclusive education, experience in teaching children with SEN, and the type of disability (de Boer et al., 2011). Similarly, qualitative research in Irish schools revealed that the attitudes of principals and teachers (n=24) towards the inclusion of pupils with SEN varied depending on the severity of disability (Shevlin et al., 2013). The study also evinced that teachers were fearful of the

unfamiliar, fearful of criticism and fearful of inadequacy in implementing inclusive practice and that these fears contributed to teacher resistance to inclusion which corroborates with literature elsewhere (Croll & Moses 2000; Hodkinson, 2005). Considering the potential impact of teacher attitudes on the development of inclusive education, it is important to address how teachers can be supported to challenge their thinking and beliefs about meeting the needs of all learners.

Challenging teacher beliefs and attitudes towards inclusion. In developing their concept of inclusive pedagogy, Florian and Black-Hawkins (2011) were influenced by the work of Hart et al. (2004) regarding the concept of transformability. This refers to the idea that a child's capacity to learn is not static and cannot be predetermined by the teacher, but rather can be transformed by the actions undertaken by the teacher in developing teaching and learning. Therefore, deterministic thinking and ability-focused teaching can have a negative impact on learning (Hart et al., 2004). Ability labelling has shown to have destructive effects on student dignity which can in turn lead to negative consequences for student outcomes (Hargreaves, 1982). When students feel that they are perceived as 'less able' they are less likely to make an attempt to try, in order to avoid failure and preserve any semblance of dignity (Hargreaves, 1982). Following the research findings relating to the self-fulfilling prophecy that showed teacher expectations as influencing student intellectual development (Rosenthal & Jacobson, 1968), studies relating to the impact of teacher expectations on student achievement have been prolific (Jussim & Eccles, 1995; Jussim & Harber, 2005; Weinstein, 2002). Non-experimental studies have revealed that children achieve less when their ability is underestimated by their teachers and inversely, children achieve more when teachers overestimate their ability (Jussim & Eccles, 1995; Jussim & Harber, 2005; Weinstein, 2002). However, it is notable that

teacher expectations are more likely to have a greater impact on more vulnerable students such as those from low-income families, low achieving students, and minority students (Hinnant, O'Brien & Ghazarian, 2009; Kuklinski & Weinstein, 2001; Madon, Jussim & Eccles, 1997; McKown & Weinstein, 2008; Sorhagen, 2013). While children with SEN are not explicitly labelled as part of this group, it is likely that they would be considered as more vulnerable students (Cosgrove et al., 2014).

A longitudinal study of one thousand children at first, third and fifth grade in the US reported that the social skills of children were a reliable predictor of teacher expectations relating to reading and mathematics achievement (Hinnant et al., 2009). The study found that teacher expectations were not influenced by later performance in reading in general, however this was not the case regarding the later performance of minority boys (Hinnant et al.). When teachers of this group underestimated the abilities of the pupils their achievement was at its lowest, and when teacher expectations were overestimated these pupils made the most progress (Hinnant et al.). The researchers contend that teachers may overestimate the academic potential of children that they "like and are easy to manage in the classroom' (Hinnant et al., 2009, p. 669). The findings have implications for pupils with social, emotional, and behavioural difficulties as research in the Irish context indicated that teachers are not likely to have high expectations for their social skills (Cosgrove, et al., 2014). Furthermore, the research findings evinced the tendency of teachers to underestimate the achievement levels of children with SEN than those without SEN, which could have a potential detrimental impact on the achievement of pupils with SEN (Cosgrove et al.). Even if students are not overtly labelled or grouped according to ability, they tend to correctly judge how they are perceived by their teachers. This assertion was validated in a threeyear field study (Ball, 1981) which compared the experiences of students in banded

ability classes with those in mixed ability classes in a comprehensive school. The findings revealed that when teachers moved from ability grouping to mixed ability groupings in their classrooms, they quickly identified students as falling into the ability categories of bright-average-weak. Ball concluded that students responded to teacher perceptions of their ability rather than the status of groups that they were placed and therefore shifting to mixed ability grouping does not necessarily ensure improvement. Teachers, influenced by a system that valorises the bell curve, often misguidedly rely on ability grouping in an effort to improve student learning (Hart & Drummond, 2014). However, in order to ensure all learners in the classroom are included, teachers must reject the dominance of ability labelling and believe that all children can make progress (Florian, 2014). The question therefore is how can teachers working within this system work towards overcoming the formidable challenge in responding to diversity and difference in an inclusive way?

Literature on teacher PD suggests considering a cross-disciplinary approach encompassing philosophical, sociological and research-based approaches, in cultivating positive teacher attitudes and beliefs towards inclusive education (Hardy, 2009; Reynolds, 2001; Westbury, Hansen, Kansanen & Björkvist, 2005). 'Discursive practice' has shown to be an effective method for challenging and transforming deterministic beliefs about difference (Florian, 2008). This practice is promoted by Peters and Reid (2009) who studied its use in initial and postgraduate teacher education programmes. According to Peters and Reid "discursive practice is a form of resistance, exercised by disability scholars, that targets hegemonic theories of disability and impairment. Its aim is to "reformulate the discursive positionings that control and ultimately will transform practice" (2009, p. 552). Discursive practice was introduced in a foundational course for undergraduate students who intend to become general or

special education teachers in Michigan State University and was also open to students across the university (Peters & Reid). The students first explore the 'medical' model of disability through literature and discussion which includes the voices of those who have a disability. They are then introduced to alternative perspectives on disability and inclusion in order to 'disrupt' the dominant notion of a 'disabled person' to come to an understanding of disability as a societal and cultural construct (Peters & Reid, 2009). Discursive practice is also used on the master's degree in special education at Columbia University, where one of the goals is to bring students to an understanding of how their perceptions of "learning dis/abilities" will impact their teaching and assessment of their students (Peters & Reid, p. 554). Teacher preparation must challenge students to understand and reflect on hegemonic and counter-hegemonic discourse in the attempt to transform schools, however, this alone will not result in effective inclusive education, it must be part of a larger societal reform that rejects exclusion (Peters & Reid, 2009). Peters and Reid make their recommendations for teacher preparation programmes, however discursive practice is particularly relevant to teacher education across the continuum to develop positive attitudes and beliefs towards inclusive education. Teachers work within a system in which difference can be viewed as a deficit and therefore as advocated by Lawson et al. (2013), policy needs to support teachers to acknowledge, problematise, question, and rethink difference in a way that becomes embedded in practice at classroom level. Furthermore, school leaders must encourage open dialogue within schools, that explores difference and diversity and how it can be addressed in a way that is inclusive for all (Mac Ruairc, 2016).

Teacher Efficacy and Inclusive Education

The second assumption of the IPAA refers to fostering teachers' beliefs in their ability to teach students with SEN. Florian (2008) contends that teachers have the

capability to teach children with diverse needs but lack confidence in their ability in this regard and therefore "teachers need to be disabused of the notion that they are not qualified" (p. 206) to teach children with SEN. Indeed, research studies have highlighted the need to address teacher efficacy for inclusive education as it is likely to affect teacher behaviour towards, and acceptance of, students with SEN (Dupoux, Wolman, & Estrada, 2005; Forlin, Sharma & Loreman, 2014; O' Donnell, 2012). The notion of efficacy was borne from the work of Bandura (1977) who identified the concept of self-efficacy in his seminal study: Self-efficacy: Toward a Unifying Theory of Behavioural Change. Self-efficacy is described as "people's judgments of their capabilities to organize and execute course of action required to attain designated types of performances" (Bandura, 1986, p. 391). Teacher efficacy can be therefore defined as "the extent to which the teacher believes he or she has the capacity to affect student performance" (Berman, McLaughlin, Bass, Pauly, & Zellman, 1977, p. 137).

A number of studies have indicated that teacher efficacy is linked to positive attitudes towards inclusive practices. Two such studies found that teacher self-efficacy was a strong predictor of teacher attitudes to inclusion (Soodak, Podell & Lehman, 1998; Weisel & Dror, 2006). Furthermore, Soodak et al. (1998) discovered that teachers with low efficacy displayed concern and disapproval around the idea of inclusion of pupils with SEN in their classrooms. In a series of studies on pre-service teacher attitudes to inclusion, findings revealed that teacher confidence in working in inclusive environments was the strongest predictor of student teachers' attitudes towards inclusion (Forlin, Loreman & Sharma, 2009; Sharma, Loreman & Forlin, 2008; Sharma, Moore & Sonawane, 2009). Sharma, Loreman and Forlin (2012), note that while studies that have examined teacher efficacy in inclusion exist (Romi & Leyser, 2006; Weisel & Dror, 2006), the research is limited and scales used in such studies are

based on a deficit conceptualisation of disability (e.g. Hutzler, Zach, & Gafni, 2005). Taking the limited research and existing scales in teacher efficacy for inclusive education into consideration, Sharma et al. (2012) sought to develop an efficacy scale specific to inclusive education. Based on Bandura's theory of teacher efficacy, Sharma et al. proffer that teachers with high teacher efficacy in applying inclusive practices would believe that they have the capacity to successfully teach students with SEN, alongside their peers in the mainstream classroom. However, a teacher with poor teacher efficacy in applying inclusive practices would believe that he or she could not successfully include pupils with learning difficulties in the class instruction and therefore may not make an effort to do so (Sharma et al., 2012). The Teacher Efficacy for Inclusive Practices (TEIP) was initially validated in a study with pre-service teachers (Sharma et al., 2012) and later validated in a 2014 study involving 737 teacher participants who engaged in basic training for inclusion on teacher efficacy for inclusive practices. The Sentiments, Attitudes and Concerns about Inclusive Education Revised (SACIE-R) scale was also validated in this study. The data findings revealed that after a one-week training course of forty hours' duration, teachers displayed diminished concerns relating to teaching students with SEN in an inclusive environment. In addition, they showed evidence of an improved sense of teaching efficacy for inclusive education among participants, regardless of demographic background variables, concerns, or attitudes (Forlin et al., 2014).

The SACIE-R and TEIP scales are recommended as a tool for teacher educators to gauge the perceived efficacy of teachers to teach in inclusive classrooms as well as for school leaders in understanding efficacy beliefs of their staff (Forlin et al., 2014).

Appendix B provides a further detailed description of both scales while a sample of each can be viewed in Appendix C. Strong teacher efficacy relating to putting inclusive

policies into practice is crucial to developing inclusive education (Forlin et al., 2014). However, research indicates that teachers do not regard themselves as having the requisite knowledge relating to inclusive education and lack confidence and competence in teaching students with SEN (de Boer et al., 2011). These research findings corroborate with research in the Irish context which surveyed primary teachers (n=244) who had qualified in the period 1998 – 2007 regarding their perceived efficacy for teaching pupils with SEN (O' Donnell, 2012). It was revealed that the majority of teachers surveyed reported low efficacy relating to creating inclusive classrooms (O' Donnell, 2012). In addition, research from a number of other sources also indicated the presence of low levels of teacher efficacy for inclusive practice (Farrell et al., 2007; Forlin, Keen & Barrett, 2008; Travers et al., 2010; Rose et al., 2015; Winter, 2006). Contributing to this lack of confidence in teaching capability is the common view of special education as being something 'different' to what is provided in the mainstream classroom.

Specialist pedagogy or inclusive pedagogy? The concept of what is special about special education is widely debated. In a research report which analysed the literature in relation to teaching approaches for students with SEN, commissioned by the Department for Education and Skills (DfES) in the UK, it was acknowledged that certain teaching approaches are associated with but "not necessarily directly related to" categories of SEN (Davis & Florian, 2004, p. 6). The report reviewed literature relating to four areas of need: communication and interaction, cognition and learning, behaviour, emotional, and social development, sensory and/or physical. Teaching approaches and strategies that are potentially effective for particular groups of learners were highlighted in the literature, for example the use of technology for learners with sensory impairment, and additional visual reinforcement to aid verbal instruction for

learners with ASD and speech and language and communication needs. The report found evidence that a multi-method approach to meeting the needs of learners with SEN was promising rather than any one strategy alone. The authors conclude that while special education knowledge is important, teaching approaches for learners with SEN are not sufficiently differentiated from those used to teach all learners to constitute SEN pedagogy. What is of more importance is the development of inclusive pedagogy to meet the needs of all (Davis & Florian, 2004).

In reviewing the evidence for distinct pedagogies pertaining to various categories of SEN, Norwich and Lewis (2007) consider the interconnections between knowledge, curriculum, and pedagogy. Their review adopts the conceptual framework of Norwich (1996) which identifies two positions to difference that inform teaching: the unique differences position and the general differences position (as discussed earlier in this chapter). The unique differences position is advocated by strong inclusion scholars, in which pedagogical responses consider the individual needs of learners in addition to needs that are common to all learners (Norwich & Lewis, 2007). The original review of specialist pedagogies included literature reviews of various authors on teaching learners with dyslexia, dyspraxia, severe learning difficulties, profound and multiple learning difficulties, Down Syndrome, English as an additional language, learners with speech, language and communication needs, Autistic Spectrum Disorder (ASD), Attention Deficit Hyperactive Disorder (AD/HD), social, emotional, and behavioural difficulties, moderate learning difficulties, low attainment, visual impairment, deafness, and learners with deafblindness. Most authors acknowledged that teaching strategies associated with learners with SEN are not distinctive to SEN categories, but there may be 'high density' approaches based on learners' needs. However, two contributors advocated distinctive group pedagogies for learners with ASD and AD/HD. The most

convincing argument for specialist pedagogy was made by Jordan (2005) who maintains that while learners with ASD have common needs, their individual needs can only be met through an understanding of ASDs (Norwich & Lewis, 2007). Norwich and Lewis (2007) acknowledge the complexity of the argument and the limited evidence base, however, they contend that there is insufficient evidence to support specialist pedagogy for categories of SEN. However, they do note that specialist knowledge relating to certain SEN groups is valuable to inform pedagogical decisions for learners with SEN. However, others regard the separation of knowledge and pedagogy as potentially detrimental to education for pupils with SEN and assert that scientific knowledge about particular types of SEN is important in meeting the needs of all learners (Mintz & Wyse, 2015). They argue for a concept of special pedagogy which refers to specialist knowledge of diagnostic categories and knowledge of the learner's individual needs.

In contrast, Lewis and Norwich (2005) proffer that differences in teaching are "at the level of concrete programmes, materials and perhaps settings. They are not differences in the principles of curriculum design and pedagogic strategy" (p. 220). Lewis and Norwich proffer a continua of teaching strategies which reflects the adaptions of common strategies for learners with SEN. Teaching at different points on the continua may look different but not qualitatively different to warrant specialist pedagogies (Norwich & Lewis, 2007). For example, some learners may need high levels of mastery learning or more bottom-up phonological approaches to reading but these approaches are not pedagogically different from teaching that does not encompass less of these approaches (Norwich & Lewis, 2007). The stance of Lewis and Norwich is supported by other researchers in the field who believe that all children can learn from the same pedagogical approaches, although adaption and differentiation are key to meet

the diverse needs of all (Davis & Florian, 2004; Rix & Sheehy, 2014; Vaughan, Linan-Thompson & Hickman, 2003). Teachers often adapt strategies when working with different groups of children but once a student is identified or diagnosed as having a SEN, they can feel inadequately prepared to meet the needs of such students (Florian, 2014). This is based on the presumption that different categories of SEN require specific approaches based upon knowledge of that difficulty, which according to Florian (2014) arguably lacks an evidence base. Individualised interventions, based on a response to a particular impairment or specific difficulty, can compound the problem of difference by marking the learner as different (Florian, 2014). What is important in developing inclusive classrooms is how teachers use specialist knowledge to inform their teaching, their approaches to group work, and how they attend to individual differences during whole-class teaching (Florian, 2014). Associated with the assumption that teachers believe themselves capable of teaching all children is the view that difficulties in learning are not within the child, but are problems for the teacher to solve (Florian, 2014). This assumption is necessary for teachers who want to develop inclusive practice and relevant to the implementation of the new model of allocation of teaching resources for pupils with SEN, which signals a move away from deficit views of disability (NCSE, 2014). In this context, teachers must be prepared to commit to supporting the learning of all children and believe that they have the capability to do so (Florian, 2014). However, in order to foster that commitment, teachers need support from their peers in developing their understanding of inclusive pedagogy and how to enact it in the classroom.

Teacher Collaboration for Inclusion

Teacher collaboration is widely accepted as key to implementing inclusive education (Ainsow, 2016; Friend, Cook, Hurley-Chamberlain & Shamberger, 2010;

Nevin, Thousand & Villa, 2009; Pijl & Frissen, 2009). In addition, the development of inclusive practice also encompasses collaboration of teachers with parents and families (Pantic & Florian, 2015). The third assumption of the IPAA relates to teachers developing new ways to collaborate with and through colleagues in providing inclusive education for all pupils (Florian, 2014). Teacher collaboration for inclusion should involve a variety of approaches, including working with other teachers in a co-teaching context, collaborative PD for inclusive practices, as well as professional dialogue with colleagues (Mac Ruairc, 2016; Peters & Reid, 2009), collaborating with outside agencies or professionals, and trying new methods and strategies that promote inclusion of learners with SEN as full members of the school and classroom community (Florian, 2014.)

Co-teaching is a form of teacher collaboration that has been lauded as instrumental to developing inclusive schools (Friend et al., 2010). Various terms are used to describe collaborative teaching such as co-teaching, in-class support, team teaching and co-operative teaching, however co-teaching is considered as the umbrella term. It is defined as "the sharing of instruction by a general education teacher and a special education teacher or another specialist in a general education class that includes students with disabilities" (Friend et al., 2010, p. 9). Co-teaching can facilitate the education of children with SEN with their peers "following the same curriculum at the same time, in the same classrooms, with the full acceptance of all, and in a way which makes the student feel no different from other students" (Bailey, 1998, p. 173). Current and past policy in the Irish context clearly states that the role of the special education teacher (formerly learning support/resource teacher) is to collaborate with the class teacher in relation to the planning and delivery of instruction to pupils with SEN and through team-teaching (DES, 2005; DES, 2017b). While previous policies have

promoted 'in-class support' and 'team teaching' in the Irish context, it remains an inchoate practice in schools (Rose et al., 2015; Travers et al., 2010). The absence of PD in inclusive education is one of the reasons behind the fragmented implementation of co-teaching along with the issue of finding time to collaborate with others (Travers et al., 2010). Furthermore, school culture can impede or enhance collaboration (Leadbeater, 2005) and developing cultures of collaboration is an arduous task, requiring effective school leadership (King, 2011). The development of inclusive schools depends on school leaders' commitment to inclusion and the development of a culture of respect for difference through ongoing collaboration (Ainsow & Sandhill, 2010). Professional collaboration and dialogue is fundamental to reflective knowledge building about SEN (Kershner, 2014). Although professionals will differ in their beliefs about SEN these differences in thought need to be shared and discussed to create understanding between professionals, as well as insight into the thinking of parents and children (Kershner, 2014; Peters & Reid, 2009; Mac Ruairc, 2016).

Teachers work within a sociocultural context and need to be prepared to "...align one's thoughts and actions with those of others in order to interpret problems of practice and respond to those interpretations" (Edwards, 2009, p. 203). Knowledge building necessitates inquiry into one's own theories and actions as well as collective inquiry. Schools need to develop collaborative improvement for inclusion through sharing practices and attempting new practices to meet the needs of all learners (Ainsow, 2016). Furthermore, collaborative learning with and from other professionals is highlighted as a potent form of professional learning and is noted as a key feature of successful schools (Stoll, Harris & Handscomb, 2012). However, meaningful professional collaboration requires systemic and school support which can often prove limited and poses challenges to collective knowledge building (Kershner, 2014).

In considering teacher collaboration for inclusive practice, the Japanese model of 'lesson study' (Takahashi & Yashida, 2004) holds considerable promise for teachers to develop creative ways of working together, as well as offering an effective form of PD (Ainscow, 2016). This approach involves teachers collaborating on a common area of focus in the classroom. Two or more teachers plan a lesson together with one colleague observing the other teach the lesson. The teachers then engage in post-lesson analysis to develop improvements for subsequent planned lessons. Such lessons or 'research lessons' provide a basis to examine practice and its impact on students in order to improve teaching and learning (Ainsow, 2016).

A study undertaken by Messiou et al. (2016) investigated the use of lesson study which incorporated student voice, to develop new ways to meet the needs of all learners in eight secondary schools in three countries (England, Portugal and Spain). Teachers worked in trios to create lessons that would create inclusive learning environments for all, including the most vulnerable students. The teachers sought students' opinions about preferred learning activities which were incorporated into planned lessons. Findings indicated that teachers' thinking about teaching and learning had been challenged in a positive way, which led to an understanding of the importance of providing new approaches for learners that resulted in student learning which exceeded teachers' expectations (Messiou et al., 2016). Like Florian (2014), the authors conclude that teacher collaboration is paramount to developing new ways of working in developing inclusion. Central to this is the development of a willingness to listen to the views of colleagues and of students (Meesiou et al., 2016). The challenges of sustaining collaborative cultures in schools have been acknowledged (Hargreaves, 1994; Kugelmass, 2001). However, such cultures can support teachers to develop collective agency to adapt policy to suit practice. Furthermore, teacher agency plays a central role

in collaboration for inclusive schools (Pantic & Florian, 2015). Agency is the ability of people to influence their environment in intentional ways (Bandura, 2001), to "make a difference", and to "intervene in the world" (Giddens, 1984, p. 14). Teacher agency, or teachers acting as agents of change in their classrooms and schools, is regarded as integral to transforming practice for teaching and learning (Kennedy, 2014; King, 2014, 2016). Developing school cultures that are characterised by an inclusive pedagogical approach requires teachers to act as "agents of change in the context of inclusion and social justice" (Pantic & Florian, 2015, p. 333). This requires teachers to demonstrate aspects of teacher agency and inclusive pedagogy which includes: a sense of purpose or commitment to social justice, competence in inclusive pedagogy, autonomy encompassing collaboration and collective agency, and reflexivity regarding one's own practice and school culture. Pantic and Florian maintain that teacher education needs to support the development of teacher agency for inclusion alongside inclusive pedagogy to enable teachers to "work purposefully with others to change the status quo and develop social justice and inclusion" (p. 333). Therefore, teacher learning for inclusive education must include support for teachers to work collaboratively with and through others to remove barriers to participation in meaningful learning experiences (Waitoller & Artiles, 2013).

Supporting the Enactment of Inclusive Pedagogy

The Inclusive Pedagogical Approach aligns with the work of Nes (2014) who outlines how teachers can develop inclusive practices by building on the teacher competences identified by the European Agency for Special Needs and Inclusive Education (EASNIE) (2012). These competences are based on core values including "valuing learner diversity, supporting all learners, collaboration with others, and continuing professional development" (Nes, 2014, p. 862) and are similar to the

concepts addressed in the IPAA. Research indicates that in order to provide sustained inclusive practice teachers need to become adept in responding to individual needs within the whole class context (Jordan, Schwartz & McGhee-Richmond, 2009; Jordan & Stanovich, 1998). The IPAA provides a framework to support teachers in meeting individual learner needs in an inclusive classroom (Florian, 2014). It outlines key challenges in meeting the needs of all learners with the intention of engaging teachers in broadening their understanding of inclusive pedagogy. Changing beliefs is an onerous task not without obstacles, however as contended by Florian (2014), it is worthwhile if it results in developing inclusive practices that move away from the exclusionary concept of the 'normative centre'. The IPAA promotes responses to difference that are inclusive of all learners and rejects any strategies that exacerbate difference (Florian, 2014). However, inclusive pedagogy does not deny difference in pupil learning but advocates responding to difference in a way that does not marginalise pupils (Spratt & Florian, 2013). The IPAA outlines teaching practices that are inclusive of all children in relation to the three assumptions deemed essential for developing inclusive practice as outlined below.

Table 2.1 IPAA Framework: Key Features and Associated Concepts (Florian, 2014)

	IPAA Key Assumptions	Associated Concepts
1.	Difference is accounted for as an essential aspect of human development in any conceptualisation of learning	Replacing deterministic views of ability with those that view learning potential as open-ended
2.	Teachers must believe that they are qualified/capable of teaching all children	Demonstrating how difficulties experienced by students are dilemmas for teaching rather than problems within students

As discussed, developing positive attitudes towards inclusive education aligns with the first assumption of the IPAA. A key challenge to rejecting deterministic beliefs about ability is the structure of schooling which is underpinned by 'bell-curve thinking' and a focus on fixed ability (Florian, 2014). Within this system of schooling, student differences are often addressed through ability grouping or the provision of additional support, which serves to reinforce marginalisation of pupils with learning difficulties (Spratt & Florian, 2015). The IPAA advocates that teachers exercise professional judgement to decide on appropriate ways of meeting pupils' needs while considering how teaching and learning choices will affect all pupils in the class (Spratt & Florian, 2015). In researching what teachers do to develop inclusive practice in the classroom, Spratt and Florian found that teacher respect for the dignity of all pupils was a common feature of inclusive classrooms (Spratt & Florian, 2015). Creating a positive classroom climate in which all children are made feel welcome, valued, and supported has long been associated with effective teaching in addition to its importance for inclusive practice (Jordan et al., 2009). In Spratt and Florian's study of inclusive classrooms they noted how teachers used approaches that involved whole-class activities which addressed the learning needs of every pupil. When children had difficulties, the teachers responded in ways which considered every pupil, rather than responses targeted at individual pupils. These teachers used a variety of approaches that included collaborative group work, formative assessment, and pupil choice, which are acknowledged as effective teaching strategies in general. However, in inclusive classrooms the teachers were mindful of the implementation of these strategies in a way

that avoids the exclusion of any pupil (Spratt & Florian). There has been some criticism of inclusive pedagogy arising from a study of teachers' practices for including children with ASD in mainstream classrooms (Lindsay, Prouix, Scott, Thomson, 2014). This qualitative research study examined the strategies used by 13 mainstream class teachers in meeting the needs of pupils with ASD in their classes. While teachers adhered to an inclusive pedagogy they also reported that they had to use specific strategies to manage behaviour that could be considered exclusionary as they targeted individual students. It is concluded that while the IPAA is a valuable framework to support the enactment of inclusive pedagogy, it could benefit from some amendments to reflect the complexity of including pupils with significant behavioural needs or the complex needs of some learners with ASD (Lindsay et al., 2014). The focus of the IPAA is to address individual needs in the consideration of all learners in the class context (Spratt & Florian, 2015). Arguably the IPAA does not consider the levels of complexities of difference that may occur between learners which may present varying levels of challenge to the enactment of inclusive pedagogy. However, the IPAA provides support regarding a range of methodologies to meet the needs of all learners. In particular, it focuses on democratic teaching practices such as differentiation through choice which values student choice over how they engage in and display their learning (Florian, 2014).

Differentiation through Choice

Differentiation through choice of activity for every pupil rather than overt teacher-led differentiation strategies is key to inclusive pedagogy (Florian, 2014).

Differentiation has been long identified as necessary to ensure positive learning outcomes for students with SEN (Broderick, Mehta-Parekh, & Reid, 2005). However, in the Irish context it is reported that only a small number of teachers use a variety of

differentiation strategies and for an insufficient amount of time (Rose et al., 2015; Ware et al., 2011). Furthermore, teachers reported difficulties in differentiating planning and teaching to meet the diverse learning needs in their classrooms (Travers et al., 2010). Differentiation refers to the challenge of engaging "students in instruction, through approaches to learning, by appealing to a range of interests, and by using varied rates of instruction along with varied degrees of complexity and differing support systems" (Tomlinson, 1999, pp. 3-4).

According to Tomlinson (1999), teachers need to consider the curriculum elements of content (what the student should know, understand, and be able to do), process (activities designed to aid student learning in relation to the content), and product (how the student will demonstrate his or her learning) when planning for effective teaching and learning. The teacher can differentiate according to these elements while also taking student readiness, learning profiles and learner interests into account (Tomlinson, 1999). In this conception of successful differentiation, difference is viewed as an essential aspect of human life: "in a differentiated classroom, the teacher unconditionally accepts students as they are, and she expects them to become all they can be" (Tomlinson, 1999, p. 10). Other characteristics of a differentiated classroom include offering students interest-based learning options, multiple methods of ongoing assessment, student guidance in taking responsibility for own learning, use of many instructional methods, flexible grouping, and frequent opportunities for student choice in learning activities (Tomlinson, 1999). These characteristics align with the concept of inclusive pedagogy, where opportunities for learning are made available to everyone in the classroom (Florian, 2014). Kaufeldt (1999) maintains that when students have some control over their tasks and look forward to the learning activity, they tend to be more motivated and positive in relation to learning. Choice designates a

degree of control to the learner "which contributes to self-determination, selfconfidence, and empowerment" (Kaufeldt, 1999, pp. 141-142). Furthermore, offering choice allows for inclusion of the voice of the learner which fosters democracy and has shown to have a positive impact on teaching and learning for inclusive schools (DuFour & Korinek, 2010; Fielding, 2007; Flynn, 2014; Shevlin & Rose, 2008). Choice is also a key feature the Universal Design for Learning (UDL) which is an instruction framework designed to enable teachers to adapt the curriculum to suit the needs of all learners and is based on three types of learning that occur in the brain: recognition learning, strategic learning, and affective learning (Hall, Meyer & Rose, 2012). Based on twenty years of research on the nature of different types of learning, the principles of the UDL support the three types of learning through the provision of multiple, flexible methods of teaching and learning. The UDL advocates supporting recognition learning through multiple types of representation, support for strategic learning through multiple types of action and expression, and support for affective learning through multiple means of motivation and engagement and highlights the use of technology in the role of teaching and learning (Rose & Meyer, 2002). There are UDL guidelines to assist the teacher in planning for lessons or unit plans which are designed to support planning for meeting the needs of all learners (Centre for Applied Special Technology [CAST], 2017). The UDL provides support to teachers to differentiate the curriculum to make it more accessible for all learners which is a shift away from the traditional deficit model of special education.

Differentiation by choice is evident in the UDL framework in terms of affording multiple means of expressing learning and interest-based learning choices that are emphasised in order to motivate and to foster student engagement (Hall et al., 2012).

The IPAA is similar to the UDL in some respects but differs in that it supports teachers

to move away from deterministic views of student achievement and in the extent of student engagement in self-directed learning (Florian, 2014). While differentiation has been long associated with special and inclusive education, Florian warns that inclusive pedagogy is not synonymous with differentiation. Inclusive pedagogy is a much more complex concept that relates to responding to individual differences between students in the classroom without marking any student as different (Florian, 2014). The features of what Tomlinson (1999), Kaudfelt (1999) and the UDL deem to constitute effective differentiation are echoed in Florian's account of inclusive pedagogy. The IPAA framework promotes the use of differentiation in the form of "choice of activity for everyone" and "providing opportunities for children to choose (rather than predetermined by the teacher) the level at which they engage with lessons (Florian, 2014, pp. 18-19). Choice of learning activity means that no learner is identified as 'different' and develops trust between teacher and student in that the student is provided with an opportunity to take responsibility for his or her own learning. Inclusive pedagogy also espouses a rejection of ability grouping and a flexible approach to co-operative learning groups and necessitates thoughtful and reflective responses to address pupil difficulties (Spratt & Florian, 2015). In addition, it encompasses formative assessment, social constructivist approaches, flexible and varied approaches, and the building of positive relationships between the teacher and pupils (Florian, 2014).

The IPAA is proffered as a framework to support research in inclusion as well as a tool for teacher educators in supporting students and for teachers to examine and develop their inclusive pedagogy (Florian & Spratt, 2013). Due to the complexity of inclusive pedagogy it is argued in this study that teachers need to be supported in developing their professional learning to enact inclusive pedagogy (Kinsella & Senior, 2008; Rose et al., 2015; Shevlin et al., 2008; Travers et al., 2010). The following

section will explore teacher professional learning and effective models of teacher PD suitable for developing inclusive pedagogy.

Teacher Professional Learning

The term 'professional' has different meanings and connotations for different people and in various contexts. For teachers, the term 'professional' usually relates to two aspects; first, regarding the quality of their work, and second, relating to the standards that they work to (Helsby, 1995). Noddings (2003) clarifies the distinction between professionalism and professionalisation with the latter referring to "a set of standards and practices approved by a profession" whereas the former refers to "adherence to a set of high standards internal to the practice" (p. 197). During the last century, emphasis shifted from professionalism to professionalisation, which resulted in occupations such as teaching contending for professional status (Noddings, 2003). The increasing dominance of accountability and standardisation in education has manifested in the professionalisation of teaching (Cochran-Smith & Lytle, 2009). In this context, teaching is in danger of being reduced to a technical role due to the dominance of market-based values and high-stakes testing based on improving rankings in supranational indicators in education policy (Cochran-Smith & Lytle, 2009; Dunne, 2011; Sahlberg, 2012).

Sahlberg (2012) terms the current policy focus in education the "Global Education Reform Movement" (GERM) which is concerned with optimising academic results and enacting policy initiatives aimed at improving teacher expertise and consequently student outcomes. Teacher 'quality' or teacher expertise has shown to be the most significant variable to impact student outcomes and therefore, PD is recognised as key to improving teaching and learning (Hattie, 2003; Mourshed, Chijioke & Barber, 2010; OECD, 2005). Increased emphasis on improving teacher

expertise is evident in policy initiatives such as Teachers Matter (OECD, 2005); How the World's Best Performing School Systems Come Out on Top (Barber & Mourshed, 2007), the World Bank's Learning to Teach in the Knowledge Society (Moreno, 2005), and Education for All: The Quality Imperative (UNESCO, 2005). This policy emphasis encompasses a call for a 'new teacher professionalism' that holds teachers to heightened standards of teaching in classrooms of increasingly diverse learners (Conway, Murphy, Rath & Hall, 2009). However, the motivation for investment in teacher PD often seems to have roots in a desire for economic return. In the Irish context, there is continued investment in PD despite recent economic decline, as evidenced in the Literacy and Numeracy Strategy. PD in this context is rationalised as necessary for improvement in international test rankings to achieve "economic prosperity" (DES, 2011, p. 9). However, mandatory PD experiences, such as those mentioned in the policy, have potential to foster teacher negativity towards PD (Hargreaves, 2007; Opfer & Pedder, 2011a). A study of teacher PD in England which surveyed teachers in a random sample of 388 schools (329 primary, 59 secondary) found that teachers in low performing schools reported a negative view towards PD as they associated it with performance management (Opfer & Pedder, 2011a). Considering the policy focus on accountability and performance in supranational indicators such as the Programme for International Student Assessment (PISA), it is crucial that PD which is meaningful to teachers' contexts and pupil needs, is prioritised over PD linked to an accountability agenda.

Effective Teacher Professional Development

In the Irish context, the accountability agenda has influenced policy which aims to formalise teacher PD engagement. The Cosán Framework for Teachers' Learning will require teachers to engage in PD in order to ensure renewal of Teaching Council

registration (Teaching Council, 2016a). However, despite the consultation process beginning in 2014 and drafting of the framework in 2016, the implementation of Cosán has been delayed until 2020 due to the current plethora of policies impacting on teachers (Teaching Council, 2016b). The Teaching Council defines CPD as "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, 2011b, p. 19). Cosán refers to this definition of CPD as synonymous with teachers' professional learning (Teaching Council, 2016a). This illustrates the often interchangeable use of the terms professional development and professional learning however, the New South Wales (NSW) Institute of Teachers (2012) differentiates between the two. Professional learning is the development of teacher expertise that positively impacts on student learning and can be seen in practice and measured through outcomes, while PD is the vehicle through which professional learning is achieved, "the processes, activities and experiences that provide opportunities to extend teacher professional learning" (NSW Institute of Teachers, 2012, p. 3).

If the goal of teacher PD is to deepen professional learning to enhance student outcomes, then the context and manner in which this PD is executed is important. PD is often associated with an 'input' or series of 'inputs' rather than the development of teacher learning which impacts practice (Bubb & Earley, 2008). However, effective PD is not a once off activity or series of activities, but the impact that any of these activities have on pedagogical routines in the classroom (Bubb & Earley, 2008). Furthermore, research on effective PD indicates that teachers' professional learning needs to be supported through sustained learning activities, rather than those which are brief and episodic (Opfer & Pedder, 2011b). While various models of PD exist, research has

indicated that they have differing levels of impact on teacher learning. Kennedy (2014, p. 693) outlines a spectrum of PD models according to three categories which identify the potential for each to precipitate teacher change.

Figure 2.1 Spectrum of CPD Models (Kennedy, 2014, p. 349)

Purpose of Model		Examples of models of CPD which
		may fit within this category
ransmissive		Training models Deficit models Cascade model
Malleable	capacity for professional autonomy and teacher agency	Award-bearing models Standards-based models Coaching/mentoring models Community of practice models
Transformative		Collaborative professional inquiry models

Transmissive models of PD often succeed in transferring knowledge to teachers, but fail to significantly impact on classroom practice something which is noted across the literature (Desimone, Porter, Garet, Yoon & Birman 2002; Garet, Porter, Desimone, Birman, & Yoon, 2001; Murchan et al., 2009; Wayne, Yoon, Zhu, Cronen & Garet, 2008). Transmissive models of PD can be delivered in the school context but are usually delivered off-site by a 'more knowledgeable other' who has pre-determined the agenda, with the participant undertaking a passive role (Kennedy, 2005). This model of PD has been predominantly used by DES support services in the Irish context since the introduction of the Revised Primary Curriculum (NCCA, 1999). The primary provider of PD to teachers in the Irish context is the Professional Development Service for

Teachers (PDST) which is an amalgamation of previously individual support services, established in 2010 as a cross-sectoral support service for schools and teachers. This support service is operated under the DES who set the PD focus for schools based on policy mandates such as SSE (DES, 2012) and the new Primary Language Curriculum (NCCA, 2015). Similar to PD provided by the former Primary Curriculum Support Programme (PCSP) for the Revised Primary Curriculum, PDST is providing schools with a 'training' model of PD in the form of centrally devised one-day seminars to support the implementation of the Primary Language Curriculum (DES, 2015b). This same model of PD has been adopted despite research findings that indicate that it previously resulted in low levels of curriculum implementation (Murchan et al., 2009). The efficacy of centrally devised PD that is 'provided' to teachers and which fails to consider the central role of leadership in creating school climates that is open to change, is questionable (Murchan et al., 2009). The dominance of the transmissive models of PD such as described above and the "one-shot workshop" model has been noted as problematic both domestically and internationally (Conway et al., 2009; Murchan et al., 2009). This fragmented provision of PD tends to result in knowledge provision rather than significant positive impact on classroom practice and isolated PD, provided offsite, results in little transfer of new learning (Fraser et al., 2007; Joyce & Showers, 2002; Kennedy, 2014; Murchan et al., 2009; Opfer & Pedder, 2011b, Sugrue, 2002). Furthermore, mandatory PD perceived as related to an accountability agenda can have negative consequences for teacher learning (Hargreaves, 2007; Opfer & Pedder, 2011b).

Teacher commitment to professional learning is a crucial component for PD success but participation in PD opportunities does not guarantee commitment to developing professional learning. A synthesis of the research on teacher professional

learning and development revealed that voluntary participation in PD does not necessarily result in more engagement in learning than mandatory participation (Timperley, 2008). Teachers may appear to choose to participate in PD but on closer inspection the 'voluntary' participation may be a result of administrative or peer pressure. Regardless of whether the PD participation is voluntary or mandatory, teachers do not usually regard engagement in deep learning or significant changes to practice as necessary aspects of professional learning and development (Timperley, 2008), contrary to research which indicates deep learning of new pedagogy as paramount to sustaining new practice (King, 2014). Furthermore, teacher motivation for engaging in PD has been shown to be propelled by a desire to gain practical ideas that are relevant to the daily teaching environment (Fullan & Miles, 1992; Morgan, Ludlow, Kitching, O'Leary & Clarke, 2010; Timperley, 2008) and PD programmes that do not meet this desire are unlikely to be effective (Guskey, 2002a).

The deficit model of PD also falls into the transmissive category. This PD model aims to remediate perceived deficiencies in teacher competence but fails to acknowledge systemic factors that contribute to the perceived deficiencies (Kennedy, 2014). It can be embedded within a context of performance management which teachers associate with the accountability agenda (Kennedy). The cascade model of PD has been predominant in the roll out of SSE in the Irish context in the form of initial one-day seminars for the school principal alone, and subsequent one-day seminars for the principal and one other teacher from the school, which were provided by the PDST (DES, 2012). This model is characterised by individual teachers or principals attending 'training events' and disseminating knowledge to colleagues on return to the school. This model focuses on 'passing on' relevant skills and knowledge and is often criticised for negating the values of education (Solomon & Tresman, 1999).

The malleable category of PD includes models of PD that have the capacity to effectively impact teacher learning, depending on the purpose and context of the PD (Kennedy, 2014). For example, the award-bearing model encompasses study programmes which are usually recognised by universities on completion. This model can significantly contribute to teacher professional learning and consequently teacher agency, such as teachers undertaking research into their own practice in their own contexts (Kennedy, 2005). However, this can be negated to some extent depending on variables such as who funds the study or the motivation for engaging in the study (Kennedy, 2014). The standards-based model has been associated with accountability and uniformity of teaching but Kennedy acknowledges that it has the capacity to facilitate increased teacher dialogue through the development of a common language, which is key to developing inclusive practice (Florian, 2008; Peters & Reid, 2009). However, such capacity can be easily diminished if the focus is on quality assurance and accountability (Kennedy, 2014).

The mentoring or coaching model can be used to ensure teachers conform to professional standards but it can also support teacher autonomy and creativity depending on its intended purpose (Kennedy, 2014). One to one relationships, usually between two teachers, are key in mentoring and coaching to support PD (Kennedy, 2005). While these relationships tend to be hierarchical, for example in the case of a more experienced teacher mentoring a newly qualified teacher, two-way learning can occur through shared dialogue (Edwards, 1997). This model is reflected in Droichead, the new induction model for newly qualified teachers, which involves a professional support team comprising of the school principal, a mentor, and one or more experienced colleagues from within the school (Teaching Council, 2016c). The community of practice (CoP) model stems from the work of Wenger (1998) and encompasses learning

within a community that involves: "evolving forms of mutual engagement, understanding and tuning [their] enterprise, developing [their] repertoire, styles and discourses" (p. 95). However, this model has limited impact on teacher learning if it serves to reinforce ineffective practice (Kennedy, 2005). Collaborative professional inquiry refers to "all models and experiences that include an element of collaborative problem identification and subsequent activity, where the subsequent activity involves inquiring into one's own practice and understanding more about other practice, perhaps through engagement with existing research" (Kennedy, 2014, p. 693). Research in teacher education has highlighted collaborative inquiry as an effective tool for teacher learning (Cochran-Smith & Lytle, 1999, 2009; Conway et al., 2009; Fraser et al., 2007; Putnam & Borko, 2000) and collaborative PD is most effective when it involves teachers from the same school collaborating on real problems of practice (Darling-Hammond, 1998; Opfer & Pedder, 2011b). Furthermore, job-embedded PD has been aligned with teacher leadership which is contended as essential to developing schools' capacity to learn (Hunzicker, 2012; Poekert, 2012). The PLC model utilised in this study is a form of collaborative professional inquiry, that has the potential to espouse the key components for transformative teacher professional learning (Kennedy, 2014; Stoll et al., 2006; Vescio et al., 2011).

Effective models of PD are underpinned by professional autonomy and teacher agency and arguably the capacity for both can increase in moving from transmissive to transformative models of PD (Fraser et al., 2007: Kennedy, 2014). Teacher autonomy relates to the individual but also to the collective profession, and affects the governance and regulation of teachers, as well as the trust and respect attributed to teachers as a profession. Teacher autonomy must be translated into teacher agency to have a positive impact on practice (Kennedy, 2014). As noted earlier, teacher agency is important in

developing inclusion (Pantic & Florian, 2015) and teachers acting as agents of change in their classrooms and schools has been noted as paramount to effective teacher professional learning (Kennedy, 2014; King, 2016). The degree to which the capacity for teacher autonomy and agency can be fulfilled is dependent upon the structure of the PD (Kennedy, 2014). Kennedy (2014) acknowledges that transmissive approaches hold some value for certain learning purposes, however, transformative models of CPD hold the greatest promise for positively impacting teacher change.

Teacher Change

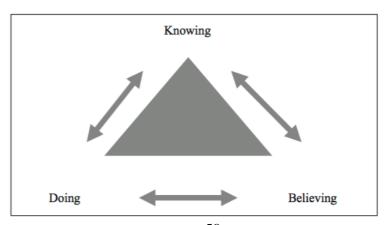
The goal of PD in education is threefold: "to bring about change in the classroom practices of teachers, in their attitudes and beliefs, and in the learning outcomes of the students" (Guskey, 2002a, p. 381). However, research indicates that PD endeavours often fail to result in teacher change (Gusky, 2002a; Hanushek, 2005: Kennedy, 2005, 2014; Opfer, Pedder & Lavicza, 2010). Theorists in the field (Cuban, 1998; Sahlberg, 2012) lament the constant pressure on schools to engage in new policy initiatives without sufficient time and support to embed new practices. Fullan (1999) refers to this dilemma by noting that "innovations are introduced before previous ones are adequately implemented" (p. 27). This problem has been attributed to inchoate conceptualisations of teacher professional learning and its associated complexities (Opfer & Pedder, 2011b; Timperley, 2008). In a review of the literature on teacher learning, Opfer and Pedder (2011b) identified three integrated and recursive systems in teacher professional learning: the teacher, the school, and the learning activity. The teacher system includes the teacher's prior knowledge and experience, beliefs and disposition towards learning, and how these manifest in practice. The school system encompasses how the teaching and learning are supported, collective beliefs about learning, collective practice in the school, and the collective capacity to achieve the aims of shared learning. The

professional learning activity system involves the "systems of the learning activities, tasks, and practices in which teachers take part" (Opfer & Pedder, 2011b, p. 384). Research on the limited impact of PD activities on teacher change revealed the cyclic nature of the learning and change process (Clarke, 1988; Clarke & Hollingsworth, 2002; Clarke & Peter, 1993). Learning needs to be supported and enacted across systems for change to occur (Clarke & Hollinsworth, 2002). Therefore, in addition to the learning activity, the individual teacher system and the school system are important influences on teacher learning (Opfer & Pedder, 2011b). A school's orientation to learning can either enable or constrain teacher professional learning depending on the norms, practices and structures (Opfer & Pedder). Therefore, school leaders have a responsibility to create the conditions that support an open culture which focuses on effective pedagogy (Mac Ruairc, 2016). In relation to individual teachers, the literature suggests that they need to experience dissonance in their thinking or cognitive conflict, in order to move away from established beliefs, knowledge to learn, and to embrace new practices (Cobb, Wood & Yackel, 1990; Wheatley, 2002;). This dissonance is referred to as the "edge of chaos" where it is likely for change to occur (Marion, 1999; Waldrop; 1992, p. 12). This aligns with discursive practice, advocated as an approach in teacher education which can disrupt hegemonic beliefs about difference and disability (Florian, 2008; Peters & Reid, 2009).

There is some disagreement regarding which is impacted by change first: beliefs or practices. Hargreaves and Fullan (1992) contend that changes in behaviour only occur after there has been changes in understanding and beliefs about how students learn. Conversely, Guskey (2002a) maintains that changes can occur in teachers' beliefs and attitudes after they see evidence of improved student outcomes. Guskey proffers that PD often attempts to change teacher beliefs and attitudes in an effort to convince

teachers to try new methods, however teachers are reluctant to commit to new practices without confidence in their success. Others dismiss that change occurs in a linear progression and highlight the reciprocal relationship between changes, beliefs, and practices (Opfer & Pedder, 2011b; Rouse, 2008). Opfer and Pedder (2011b) proffer that change is cyclical in that "changes in beliefs lead to changes in practice that bring changes in student learning that bring further changes in practice that result in additional changes in belief and so on" (p. 395). The nature of the change relationship is reciprocal as change in one element depends on change in another, with potential for change to occur at any point. However, for teacher learning to transpire, there must be change in all three areas – beliefs, practice and student learning (Opfer & Pedder, 2011b). Similarly, Rouse (2008) describes the reciprocal triangular relationship between knowing, believing and doing in relation to PD for inclusive practice (Figure 2.2.). If teachers have positive beliefs about inclusion and support in implementing new approaches, then they are likely to develop new knowledge about inclusive practice. On the other hand, a teacher who believes in inclusion but does not feel capable of implementing inclusive practice could undertake a course to develop his or her knowledge for inclusive practices, which may enhance teacher efficacy for inclusive practice (Rouse, 2008).

Figure 2.2 Reciprocal Relationship between Knowing, Believing and Doing



Teachers will differ in levels of knowledge, beliefs, and practices relating to inclusive practice but all three do not have to be in place to ensure teacher change, development of two elements is likely to influence development of the third (Rouse, 2008). The challenge for teacher education to is employ effective pedagogies for teacher learning that develop the knowledge, beliefs and practices to support inclusive education (Florian, 2008).

Effective Pedagogies for Teacher Professional Learning

Teacher reflection and enquiry is frequently advocated in literature on teacher education and consequently reflective practice and enquiry into one's practice have become integral components of initial teacher education (Teaching Council of Ireland, 2011b). The concepts of 'reflection' and 'enquiry' in education date back to the work of Dewey (1933, 1938). Schön (1983) built on the Deweyan theory of inquiry (1938) and encompassed a powerful constructivist position and criticism of the dominance of the positivist epistemology. Reflection, according to Schön (1983), is depicted as an individual process negotiated by the practitioner according to his or her situation. In contrast, there has been a recent emphasis on the importance of collaborative practice in relation to reflection (Cochran-Smith & Lytle, 2009; Zeichner & Liston, 1996). Cochran-Smith and Lytle (1999, 2009) developed the concept of 'inquiry as stance' which relates to teachers who inquire into their own practice to construct or coconstruct 'knowledge of practice'. 'Knowledge of practice' challenges the traditional 'knowledge for practice', which is constructed by external experts. The concept of 'knowledge of practice' is further developed into 'inquiry as stance', a mode in which teachers "work within inquiry communities to generate local knowledge, envision and theorise their practices, and interpret and interrogate the theory and research of others"

(Cochran-Smith & Lytle, 1999, p. 289). Such learning communities can build new knowledge when teachers engage in collaborative inquiry about their own practice (Cochran-Smith & Lytle, 1999). As noted by Kennedy (2014) and evidenced in many studies, this form of enquiry can significantly contribute to teachers' professional learning (Cobb et al., 2003, Putnam & Borko, 2000, Wood, 1995) and is reflective of the identified signature pedagogies for teacher education (Parker, Patton & O'Sullivan, 2016). A meta-review of 24 physical education PD studies published between 2005 and 2015 aimed to identify specific pedagogies effective for developing teacher professional learning (Parker et al, 2016). This review encompassed interviews and/or surveys of 479 teachers and 48 facilitators across the US and Europe. The findings verified three distinct pedagogies of effective PD:

- 1. Critical dialogue
- 2. Public sharing of work
- 3. Engagement in communities of learners (Parker et al., 2016, p. 141).

All of three pedagogies reflect the importance of reflection and enquiry for teacher learning, as noted in the literature (Cochran Smith & Lytle, 1999, 2009; Kennedy, 2014; Zeichner & Liston, 1996) (Figure 2.3).

Figure 2.3 Characteristics of Signature Pedagogies (Parker et al., 2016)

	Critical dialogue	Public sharing of work	Communities of learners
Structure	Pairs or small groups of familiar members	Often unfamiliar audiences	Groups with well- developed relationships
Merits	Promotes learning through communicative inquiry Challenges teacher's professional beliefs and values	 Provides affirmation or work • Results in self-confidence Allows teachers to view themselves as professionals 	 Teachers learn from and with one another, growing a culture of collaboration Engenders camaraderie and respect
Drawbacks	 Facilitation required to maintain focus Time and opportunities for teachers to meet are required 	 Teachers may lack confidence to present in a meaningful way Preparation requires time 	 Time and labour intensive Requires development of personal and professional relationships Warrants careful facilitation

The researchers delineated each of the pedagogies according to Shulman's (2005) signature pedagogy dimensions: surface, deep, and implicit structures (Figure 2.4). The surface structure of a signature pedagogy relates to the "concrete, operational acts of teaching and learning" (Shulman, 2005, p. 54). The deep structure of a signature pedagogy relates to the "set of assumptions about how best to impart a certain body of knowledge and know-how" (Shulman, 2005, p. 55), while the implicit structure is "a moral dimension that comprises a set of beliefs about professional attitudes, values, and dispositions" (p. 55). The implicit structure reflects the "hidden curriculum" of the pedagogy (Shulman, 2005, p. 55) and indicates why it is effective for teacher professional learning (Parker et al., 2016).

Figure 2.4 Surface, Deep, and Implicit Structures of Signature Pedagogies (Parker et al., 2016, p. 142)

Signature pedagogy	Surface structure	Deep structure	Implicit structure
Critical dialogue	A focus on critical dialogue and reflection of content and pedagogies	Allows teachers to bring their own experience to the table with a focus on inquiry and reflection	Challenges teachers' professional beliefs and values pushing their thinking about what it takes to become a teacher
Public sharing of work	Development and public sharing of artefacts	Supports teachers to create and share concrete representations of their learning	Affirms teachers in the work they do to move the profession forward while developing their leadership capacity
Communities of learners	Groups who engage in a process of collective learning around a shared concern or a passion	Provides teachers with the necessary support, focus, time and environment to facilitate learning	Provides a safe social learning environment to explore teaching, values about teaching, and challenge routinized and sometimes longheld teaching and learning practices while also learning new content, pedagogies

At the surface structure of critical dialogue there is a focus on reflection and enquiry through deep conversations that challenge teaching and evidence of pupil learning (Parker et al., 2016). At the deep structure of this pedagogy teachers construct meaning through collaborative discourse relating to teaching and learning. The implicit structure of critical dialogue aligns with the discursive practice approach (Peters & Reid, 2009) as there is a focus on challenging teachers' beliefs and values to develop and improve their practice (O'Sullivan & Deglau, 2006). Public sharing of work aligns with the identification of reflection and enquiry that includes deprivatisation as a characteristic of effective PLCs (Stoll et al., 2006). At the surface level teachers share practices,

beliefs, values and artefacts of work (Parker et al., 2016). The deep structure involves teachers creating and sharing elements of their practice that can be used by others in the classroom. While it can be daunting for teachers to share their classroom practices and evidence of pupil learning, at an implicit level it can lead to affirmation of their work and consequently improved self-confidence (O'Sullivan & Deglau, 206; Parker, Patton & Sinclair, 2015) which suggests potential for improved efficacy. The pedagogy of communities of learners aligns with PLCs in that it promotes collective knowledge building around a shared concern at the surface level. The deep structure provides the supportive conditions for such while the implicit structure provides a safe space for teachers to explore and challenge practices that are routine (Parker et al., 2016).

The pedagogies of critical dialogue, public sharing of work, and working in a community of learners are central to collaborative teacher professional learning (Parker et al., 2016).

Table 2.2 Professional Development for Transformative Teacher Learning

Collaborative Professional Inquiry	Effective Pedagogies	
(Kennedy, 2014)	(Parker et al., 2016)	
 Collaboration 	 Critical dialogue 	
 Professional autonomy 	 Public sharing of work 	
 Teacher agency 	 Engagement in communities 	
	of learners	

These pedagogies could support the evolution of schools as research sites, where teachers can collectively build knowledge to develop inclusive practice (Kershner, 2014). The notion of collaborative knowledge creation aligns with the literature on models of effective PD and the principles of The Continuum of Teacher Education (Teaching Council, 2011b) which suggests that PD should be constructivist in nature and promotes school based collaborative inquiry as a valuable model of PD. The

effective pedagogies identified by Parker et al. are essential to achieving the goal of transformative teacher learning. PLCs are a form of collaborative inquiry that can manifest the pedagogies of critical dialogue, public sharing of work and working in a community of learners and have shown to hold promise for transformative teacher learning (Kennedy, 2014; Stoll et al., 2006). The following section will discuss the development of effective and sustained PLCs for teacher professional learning.

Professional Learning Communities

Various terms are used to describe teachers working collaboratively towards improving teaching and learning however the term 'professional learning community' is widely used in international literature (e.g. Bolam et al., 2005; Stoll et al., 2006; Vescio et al., 2008) and is therefore adopted in this study. The term 'professional' distinguishes PLCs as specific to teachers critically evaluating practice from more generic 'learning communities' (Stoll et al., 2006). There is no universal consensus of the definition of a PLC however on reviewing the literature Stoll et al. (2006) propose that there is a general understanding of PLCs as involving "a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning oriented, growth-promoting way" (p. 223). PLCs have become popular modes of PD due to their potential to transform practice to improve student outcomes (Kennedy, 2014; Stoll et al., 2006) and teacher engagement in PLCs is deemed as crucial for developing professional learning that impacts pupil outcomes (Borko, Jacob & Koellner, 2010; Little, 2002). In addition, it is proffered that PLCs are essential for supporting teacher learning for inclusive practice, although there has been little research in this field (Pugach & Blanton, 2014). However, engagement in a PLC does not guarantee professional learning that will transform practice. While PLCs can foster collaborative relationships among teachers, there is a danger that a collegial

community will only serve to embed existing practice if it fails to challenge current teaching methods, for example through critical dialogue (Parker et al., 2016), and lacks focus regarding meeting students' needs (Timperley, 2008). Furthermore, models of collaborative professional inquiry will not transform practice if they are contrived efforts to promote external interests rather than meaningful teacher and student driven collaboration (Kennedy, 2014).

An increased emphasis on 'inquiry' and 'communities' is notable in recent policy development which is primarily focused on improving results in high-stake assessments (Cochran-Smith & Lytle, 2009; Hargreaves, 2007). PLCs can have negative correlations for teachers who experience them as compulsory after school meetings which focus on school improvement through analysing assessment data (Hargreaves, 2007). Hence, a shared or common goal is a key feature of successful PLCs (Stoll et al., 2006) and this must be negotiated in order to secure teacher 'buy-in' and to avoid limiting "the focus and tasks of communities to what fits within a narrow accountability frame [which] may actually contribute to the de-skilling of practitioners and may constrain participants from contributing to more encompassing educational transformation" (Cochran-Smith & Lytle, 2009, p. 140). The concept of a PLC has emanated from a number of sources including the development of theories around reflection, inquiry and self-evaluation (Stoll et al., 2006). According to Hord (1997), inquiry is a central component in a PLC with the responsibility being placed on the participants to improve student outcomes. Continuous learning is at the heart of PLCs and research engagement is fostered through reflection and inquiry aligning with the pedagogy of critical dialogue (Parker et al., 2016). This context provides the opportunity to bridge the research-practice divide (Dimmock, 2016).

Impact of professional learning communities. PLCs that are well structured and which consistently focus on pupil learning enhance teacher learning for, and implementation of, new practice (Harris & Jones, 2011; Hord, 1997; Stoll et al., 2006; Vescio et al., 2008). Vesicio et al. (2008) carried out a review of 11 predominantly qualitative studies which measured the impact of PLCs on student learning. The review found that student improvement occurred when the PLCs encompassed key characteristics identified in previous research (Stoll et al., 2006) such as a focus on student learning, continuous teacher learning, and teacher leadership. In a study involving classroom observation and teacher interviews, Louis and Marks (1998) examined the impact of a PLC, which focused on social and technical classroom organisation, on student outcomes across 24 elementary, middle, and high schools (8 of each school type). The findings revealed that the PLCs had a positive impact on classroom organisation for learning and higher achievement levels among students (Louis & Marks, 1998). Using qualitative and quantitative research methods to study 'learning enriched schools', Rosenholtz (1989) reported that teacher efficacy and effectiveness were enhanced when teachers were supported through teacher networks and cooperation with colleagues. Research relating to teacher efficacy as outlined earlier in this chapter has shown that teachers with high self-efficacy are more likely to attempt new practices and in addition are more likely remain in the profession (Bandura, 1993; Tschannen-Moran & Hoy, 2001). Although the findings of Rosenholtz (1998) were linked to generic teacher collaboration rather than specifically linked to PLCs, it could be argued that collaboration in the form of a PLC has potential for developing teacher efficacy for inclusive practice. When teachers have increased opportunities to engage in collaborative enquiry and its associated learning, it can lead to generation of shared knowledge of practice (Stoll et al., 2006). PLCs that work well

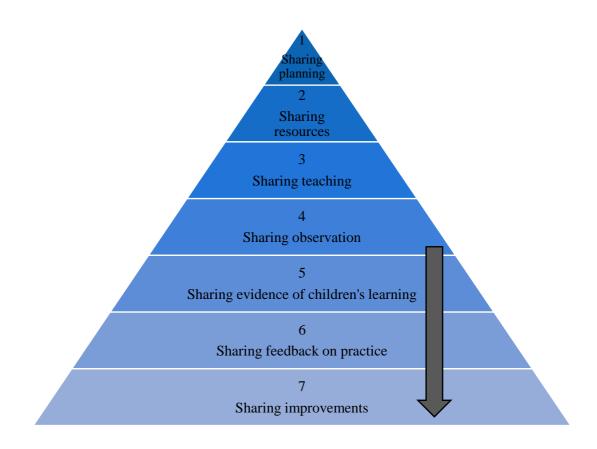
have shown to result in higher levels of job satisfaction among teachers and lower absenteeism rates and increased effective teaching and improved student outcomes (Huffman & Jacobson, 2003; Andrews & Lewis, 2004). These findings have been further strengthened by research into professional learning in the U.S. and abroad which found that collaborative professional learning promotes school change (Darling-Hammond, Wei, Andree, Richardson & Orphanos, 2009).

A synthesis of 97 international studies relating to teacher professional learning and development included reviews of PLCs (Timperley, Wilson, Barrar & Fung, 2007). In studies where PLCs promoted teacher and student learning, there was support for teacher dialogue that challenged problematic beliefs, substantiating critical dialogue as a key pedagogy for teacher learning (Parker et al., 2016) The review also noted that effective PLCs had a clear focus on evaluating the impact of teaching on student learning, as noted previously (Stoll et al., 2006) and external expertise that added new perspectives that developed the teacher dialogue (Armour & Yelling, 2007; Timperley et al., 2007). External expertise was found to enhance teacher learning in research undertaken by King and Feely (2014) involving 11 teachers in an Irish primary school. External support from the PDST and a university lecturer, facilitated the development of a collaborative learning initiative (CLI) for teaching oral language. The participants deemed the external support as key to their engagement with the CLI, the sustainability of new practices, and teacher leadership for sustaining the collaboration after the initial CLI had ended (King & Feely, 2014). Similarly, a two-year study of a PLC to develop teacher professional learning for writing in the Irish context, reported external support as valuable and proffered qualified facilitation of PLCs, possibly through university and schools linkage, to build school capacity for PLCs (O'Sullivan, 2011). In addition, the single focus of the PLC was helpful in terms of working towards a shared goal, as is

noted in literature (DuFour, DuFour, Eaker & Many, 2006; Stoll et al., 2006).

Furthermore, the findings suggested that support for teacher agency is key to the development of effective PLCs echoing literature elsewhere (Harris & Jones, 2010; Kennedy, 2014). Teacher collaboration in PLCs can vary across a progressional continuum (O' Sullivan, 2011). The teachers in the study reported engagement at different levels of collaboration during the PLC which mirrored their development of inquiry into their own practice and learning (Figure 2.5).

Figure 2.5 Conceptual model for learning collaborative practice, demonstrating progressional development of levels of collaboration (O'Sullivan, 2011, p. 121)



This figure demonstrates that sharing planning is just the starting point in teacher collaboration, while it takes time to develop more critical collaboration (O'Sullivan, 2011). It has been established that schools are complex systems (Senge, Cambron-McCabe, Lucas, Smith & Dutton, 2000) and that any attempt to implement change which challenges values and beliefs, needs to account for the intricate challenges presenting at different levels within the school (Opfer & Pedder, 2011b; O'Sullivan, 2011). While PLCs are not a panacea for successful improvement of teaching and learning, they certainly have potential to positively impact teacher professional learning and student outcomes, if they are carefully planned and embody the key elements for success (O'Sullivan, 2011; Stoll et al., 2006; Timperley et al., 2007). Therefore, it is crucial to consider the potential challenges to developing PLCs.

Challenges in developing, implementing and sustaining PLCs. Five key characteristics of effective PLCs emanate from the literature (Stoll et al., 2006, p. 227) including:

- Shared values and vision: shared commitment to a common goal
- Collective responsibility for student learning
- Reflective professional inquiry: engagement in reflective dialogue and deprivatisation of practice (Louis et al., 1995), problem solving and knowledge creation
- Collaboration with colleagues
- Group, as well as individual, learning is promoted: all members are learners and collective learning also occurs through collective knowledge creation (Louis, 1994)

Research undertaken by Stoll et al. (2006, p. 227) validated these characteristics and also identifies three further elements:

- Mutual trust, respect and support among staff members
- Inclusive membership extending to members of staff other than teachers
- Openness, networks and partnerships seeking external sources of learning and ideas.

These characteristics echo those identified by Bolam et al. (2005) who reviewed 16 case studies in the UK. Harris and Jones (2010) also identified similar key characteristics for effective PLCs in their study of a major education reform process in Wales aimed at improving outcomes for all learners. The School Effectiveness Framework (SEF) introduced by the Welsh government included the employment of PLCs within, between, and across schools in order to develop school improvement. A central component of this reform process is the understanding that collaborative partnership between professionals is essential to successfully implementing change. It is worth noting that PLCs were mandatory in this study, although the teachers had control of the learning focus. Harris and Jones (2010) outline the key principles relating to the current work around PLCs which relate back to characteristics identified by Stoll et al. (2006). First, system collaboration and networking is essential for system-wide change. Second, the focal objective of PLCs is to improve student learning outcomes, and third, enquiry approaches characterise the PLC model in an effort to change practice, aligning with the emphasis on critical dialogue as key to teacher learning (Parker et al., 2016). Similar to the findings of Kennedy (2014), teacher autonomy and agency were key in the model of PLCs developed in Wales. Teachers have shared responsibility for decision-making and for the outcomes of their work and according to Harris and Jones (2010) this empowers teachers to "innovate, develop and learn together" (p. 175). Improving student outcomes needs to be the core focus of a PLC and if it is not coherently structured, the potential impact will most likely be lost (Harris & Jones, 2010).

In reviewing the literature on improving student outcomes, Darling-Hammond and Richardson (2009) found that PD which is (a) ongoing, (b) centres on student learning, (C) linked to school priorities, and (d) focused on fostering teacher

relationships positively impacts on student learning. PLCs provide a space for PD based on these characteristics. While the optimum conditions for PLCs may be created within the school, Harris and Jones (2010) discovered that external pressures such as department initiatives and school inspections negatively impacted the progress of a PLC. Their research revealed that some schools lost momentum due to competing demands, while schools where the PLC was part of the school development planning, made more of an effort to continue the work of the PLC. Harris and Jones (2010) use this finding to emphasise the importance of the PLC not becoming an additional pressure on teachers: "If professional communities are to support changing teachers' practice, they need to be an integral part of routine school development" (2010, p. 179). This finding resonates with the earlier point in relation to the potentially negative impact of accountability and reform agendas on teacher engagement with collaborative professional inquiry (Cochran-Smith & Lytle, 2009; Hargreaves, 2007).

Harris and Jones (2010) also reported structural challenges such as paperwork, classroom management, and lesson planning which reduced time for teachers to collaborate in the PLCs. Lack of time has been identified as a perennial challenge to teacher PD in schools, something that must be addressed if schools are to develop as PLCs (Parker et al., 2016; O'Sullivan, 2011). The research findings from the pilot phase of PLCs in Wales highlighted what has been noted in previous studies: developing and sustaining this model of PD is an onerous endeavour that does not always result in improved teaching and learning (Harris & Jones, 2010). While the challenges in developing, implementing and sustaining PLCs may be numerous, they are not insurmountable. The development of effective PLCs for teacher professional learning depends on the alignment of conditions conducive to collaborative learning within schools in order to overcome the challenges identified above (O'Sullivan, 2011; Stoll et

al., 2006). Supportive leadership is key to creating conditions for teacher professional learning and has shown to be paramount to the success of PLCs (Bolam et al., 2005; Harris & Jones, 2010; Stoll, Harris & Handscomb, 2012).

School leadership for PLCs. In the research of Harris and Jones (2010) it was found that PLCs which were supported and promoted by school leaders overcame initial resistance to change, while those that lacked such support encountered difficulties in making progress. This finding correlates with research which highlights the responsibility of school leaders to create the optimum structural and cultural conditions for effective PLCs (Day et al., 2009, Fullan, Cuttress & Kilcher, 2005; Stoll et al., 2006; Vescio et al., 2008). The research indicates that effective PLCs are supported by school leaders who create cultures which foster learning at all levels (Stoll et al., 2006). Furthermore, PLCs benefit from leadership that is "enquiry-minded" (Stoll et al., p. 236) which promotes research and evaluation across the school. Distributed leadership, or leadership that "cultivates leaders at many levels" (Fullan, 2002, p. 20), is also key to developing effective PLCs (Stoll et al., 2006). However, despite the school leader having knowledge of effective conditions for and characteristics of PLCs there is an absence of support and guidance for school leaders on "ways of changing the professional culture of a system" (Talbert, 2010, p. 556). For example, teacher collaboration has been outlined as key to developing PLCs however, the traditional privatised practice of teaching provides a challenge in encouraging teachers to discuss and share practice. Making practice public can provide rich and valuable opportunities for professional learning (Parker et al., 2016) and is indicated as important for developing effective PLCs (Louis & Marks, 1998). Yet, changing the entrenched norm of privacy is an onerous challenge for any school leader (Fullan, 2007).

In addition, another challenge presents in the limited time for collaboration in schools and when available it needs to be carefully managed to ensure it is focused on meaningful collaboration (O'Sullivan, 2011; Talbert, 2010). Harris and Jones (2010) identified cultural challenges to developing PLCs in certain schools. In such cases teachers were resistant to participating in the PLC as it was a new way of working which was viewed as potentially involving increased workloads (Harris & Jones, 2010).) Leadership was key in these situations to support and progress the PLC. When school leaders displayed positive support for PLCs the initial reluctance and doubts were diminished (Harris & Jones, 2010). This finding supports the work of Day et al. (2009) in examining the impact of school leadership on student outcomes in the UK. The study identified schools which had demonstrated significant improvement in pupil outcomes in a three-year period (2003-2005), many of which continued to maintain or make improvements in subsequent years. Findings from surveys of school leaders and other key staff members in a national sample of schools and 20 case studies, reported that the role of school leaders in providing the appropriate structural and cultural supports was pivotal to the success of PLCs. This finding was echoed in the work of King (2014) which stemmed from an impetus to explore sustainability of teacher practices over long periods of time. Support from school leadership was identified as one of the systemic factors that contributed to the sustainability of new practice (King, 2014, 2016).

While it is important to identify the characteristics of effective PLCs, it is equally important to identify the factors that contribute to creating the key conditions for effective collaborative professional inquiry.

Table 2.3 Key Conditions for Effective Collaborative Professional Inquiry

Characteristics of Effective PLCs Prerequisites for effective collaborative (Harris & Jones, 2010; O'Sullivan, 2011; Stoll professional inquiry et al., 2006; Vescio et al., 2008) (Kennedy, 2014; King, 2014; Stoll et al., 2006, O'Sullivan, 2011) Shared values and vision • Leadership that promotes a learning culture and distributed • Collective responsibility for student learning leadership Reflective professional inquiry • External expertise Collaboration with colleagues • Time for collaboration Group, as well as individual, learning is • Teacher agency promoted Mutual trust, respect and support • Voluntary participation Inclusive membership Openness, networks and partnerships

Research indicates that planning PD with the outcomes in mind is more effective for teacher learning (King, 2014, 2016). Therefore, the above factors must be considered in the process of planning for effective professional development. Planning for effective PD and evaluating the impact of such will now be discussed in further detail.

Planning and Evaluating Professional Development

This study explored the literature on planning and evaluating PD in order to identify an evidence-based framework to support the planning of a PLC for inclusive practice. Research on the key levers for PD that results in sustained practice examined the influence of a PD initiative on teacher professional learning, three years after it was implemented (King, 2014). The PD initiative involved teacher collaboration to implement peer tutoring for reading fluency with third class pupils, in five urban disadvantaged primary schools in Ireland (King, 2014). Evaluation of PD has traditionally been superficial, mainly concerned with participants' initial reactions, and this data is usually gathered through generic questionnaires (Guskey, 2002b; Rhodes, Stokes & Hampton, 2004; O' Sullivan, 2011). The paucity of evidence-based evaluation relating to teacher PD has resulted in limited knowledge of its impact on

teacher learning and student learning (King, 2014). While there are studies available which determine a causal link between teacher PD and student learning (Yoon, Duncan, Lee & Shapely, 2008), it has been noted that the research findings are not generaliseable across a multitude of contexts (Wayne et al., 2008). Causal studies play a role in determining correlations between PD and student learning, but the complexity of teacher learning and teacher change must be considered in efforts to support teacher PD that impacts student outcomes (Opfer & Pedder, 2011b; Wayne et al., 2008). Ingvarson, Meiers & Beavis, (2005) call for a broader measure of student outcomes rather than the dominant mode of standardised testing. There is a place for qualitative as well as quantitative measurement of student learning which could include teacher interviews, observations, surveys and student work samples (Desimone, 2009; Guskey, 2002b, Ingvarson et al., 2005). King (2014) examined existing evaluation frameworks and subsequently built upon the PD evaluation frameworks of Hall and Hord (1987), Guskey (2002b), and Bubb and Earley (2010), to develop an evaluation framework which further teases out the complexities of teacher engagement with PD (Appendix D).

Table 2.4 Comparison of Evaluation Frameworks

Guskey (2002b)	Bubb and Earley (2010)	King (2014)
 Participants' reactions Participants' learning Organisation support and change Participants' use of new knowledge and skills Students' learning outcomes 	 Baseline picture Goal Plan The experience Learning Organisational support Into practice – degree and quality of change (process, product or staff outcome) Students' learning outcomes Other adults in school Other students Adults in other schools Students in other schools 	 Baseline (motivation/expectations) PD experience (activities/experiences/model) Learning outcomes (teachers) Degree and quality or change: Outcomes (organisational, staff/teachers' practice, student, diffusion (other adults/students impacted in school) Systemic factors (factors that helped/hindered engagement with/sustainability of new practices)

King notes that previous PD evaluation frameworks have been criticised for their hierarchical nature with levels of evaluation which are not necessarily consequential (Holton, 1996; Coldwell & Simkins, 2011). For example, effective implementation of level two of Guskey's (2002b) framework - Participants' Learning - does not directly result in the necessary components for level three - Organisation Support and Change (Coldwell & Simkins, 2011). Furthermore, other factors that contribute to effective PD are not considered, such as teacher collaboration (Bubb & Earley, 2010; King, 2014), which is identified as key in supporting teacher professional learning for improved practice and sustainability of change in the long term (Bolam et al., 2005). In Guskey's (2002b) framework, level four considers the "Participants' Use of New Knowledge and Skills" in attempting to evaluate the extent and standard of new practice implemented.

Guskey (2002b) refers to Hall and Hord's (1987) 'Levels of Use' of innovation (LoU) (Figure 2.6) which offers a framework for evaluating implementation of new practices, however the LOU is not adopted into Guskey's evaluation framework.

Figure 2.6 Levels of Use (Hall & Hord, 1987)

	Level of use	Behaviours
Users	Renewal	Makes major modifications in the innovation or their innovation use to improve the impact on pupils
	Integration	Examines new developments in the field Commitment to use the innovation with other teachers to provide a collective impact on pupils Makes changes to accommodate the use of innovation with another teacher
	Refinement Routine	Makes changes to enhance the impact on pupils in their class Established use of the innovation Little thought about improving innovation use
	Mechanical	Not making any changes to it Concerned with logistics and organizational issues Clings to the user guide Makes changes to suit user needs
Non-users	Preparation	Focuses on short-term, day-to-day use of the innovation Makes a decision to use the innovation Preparation and planning for the first use of the innovation
	Orientation	Takes action to learn more detailed information about the innovation (e.g. looks for information about the innovation – talking to others, attending a workshop; explores the possibilities for use of the innovation)
	Non-use	No commitment to use the innovation Absence of innovation-related behaviour – no knowledge, involvement and doing nothing toward becoming involved

In a similar vein, Bubb and Earley (2010) outline level seven as "Into Practice – degree and quality of change" to evaluate the impact of PD on staff, which may result in new products, processes, or staff outcomes. This aspect of PD evaluation is paramount considering that the literature calls for teachers' engagement with PD to result in teachers' deep learning and sustained practice (Baker, Gerston, Dimino & Griffiths 2004; Bolam et al., 2005; Priestley et al., 2011). This was acknowledged by King (2014) and was subsequently reflected in a robust measurement of implementation in the PD Impact Evaluation Framework, which considers the degree and quality of changes and outcomes relating to organisational changes, staff/teachers' practice,

student outcomes and diffusion (other adults/students impacted in school) but is not hierarchical in nature.

The operationalisation of the PD Impact Evaluation Framework was explored in a qualitative, multiple case-study approach, including interviews with 20 participants (King, 2014). The study focused on the impact of PD on teacher professional learning which includes "teacher implementation levels, knowledge, beliefs, and practice" as these components are considered as essential in the assessment of teacher change and PD (King, 2014, p. 92) and PD that neglects these elements is likely to prove ineffective (Cuban, 1988; Fullan 1993; Guskey, 2002a; Opfer & Pedder, 2011b; Sahlberg, 2012). The research findings indicated that overall the framework, which built on those of Guskey (2002b), Hall and Hord (1987), Bubb and Earley (2010), in addition to consideration of the wider literature which advocated the importance of collaboration and attitudes and beliefs, was suitable for evaluating the PD initiative in the study (King, 2014). However, the initial framework used in the study was refined in light of the research findings, to explicate aspects of PD impact that were not sufficiently addressed. For example, the data analysis highlighted the complexity of factors which impact on teacher professional learning and so the heading "Organisation Support" was changed to "Systemic Factors" (King, 2014, p. 103). Research findings revealed that a large number of teachers involved in the PD initiative had sustained the new practice over time and the systemic factors which supported this sustained practice include:

- support (leadership, change-agent, professional learning communities)
- initiative design and impact (structure, success)
- teacher agency (openness and willingness, motivation, deep learning) (King, 2014, 2016).

Support from the school leader was instrumental in providing the optimum conditions for the success of the PD initiative, a factor which is echoed across research in this area (Day et al., 2009, Earley & Bubb, 2008; Fullan, Cuttress & Kilcher, 2005; Harris & Jones, 2010, O'Sullivan, 2011; Stoll et al., 2006). The teachers who introduced the initiative to their peers were considered 'change-agents' as they continue to advocate for the practice and had support from the school leader (King, 2014, 2016). These 'change-agents' valued the new practice and hence took responsibility for it and desired sustainability in the implementation process (King, 2014, 2016). The design of the PD initiative was critical to the success of implementation and sustaining of new practice. Teachers reported satisfaction with operationalisation of the initiative (King, 2014, 2016) and this reflects the importance of engaging teachers at their level of skill and prior knowledge (Kervin, 2007). The researcher notes that the collaborative aspect of the initiative was mentioned as positive by a number of teachers who commented on the benefits of working together and peer learning (King, 2014, 2016). This finding correlated with the research of Desimone et al. (2002) who cite high quality collective PD as superior to individually focused PD experiences. Teacher agency was also found to be an important factor in sustaining the PD initiative, something King (2014) notes is missing from some research around the contributing factors to effective PD (Desimone et al., 2002; Garet et al., 2001). The findings reported that teacher openness and willingness to participate in and preserve the initiative was instrumental to sustainability over time (King, 204, 2016). Teacher motivation was captured due to the relevance of the initiative to their own teaching context, mirroring research elsewhere which identifies that teachers place more importance on practices they perceive to impact improved student learning rather than outside directives relating to practice (Earley & Bubb, 2004; Evans, 2008; Morgan et al., 2010). Deep learning is also

mentioned as essential in any attempt to change practice which related to "understanding pedagogy and the pedagogic content knowledge related to the practice" (King, 2016, p. 18). The research indicated that teachers were engaged in deep learning at a 'critical' level (King, 2014) thus building on Hall and Hord's (1987) levels of use (Figure 2.6). It is acknowledged that the research relating to evaluation of PD will continue to develop but this framework offers a robust tool for assessing the impact of quality of teacher PD (Appendix D) (King, 2014). In addition, the framework offers flexibility for use in planning PD (Appendix E) at the outset, to result in more effective outcomes from PD engagement (Earley & Porritt, 2011).

Table 2.5 Planning and Evaluating Professional Development

Planning for Effective PD (King, 2016)	Evaluation of PD Impact (King, 2014)	
Baseline (Individual/School, Targets) Outcomes (Student outcomes, Organisational, Staff/teachers' practice, Diffusion) Systemic factors (Support, Initiative design and impact, Teacher agency) Learning Outcomes (Teachers' Practice) PD Experience (Activities/Experiences/Model)	 Baseline (Motivation, Expectations, Evidence Base) PD Experience (Activities/Model) Learning Outcomes (Teachers) Degree and Quality of Change (Organisational, Staff/Teachers' Practice, Student Outcomes, Diffusion Systemic Factors (Factors that helped/hindered engagement with / sustainability of new practices) 	

While the Teacher PD Planning Framework is proffered as a support tool for planning and evaluating PD in schools, it is acknowledged that the systemic factors identified are subject to further research across a variety of contexts (King, 2016). Sustained and comprehensive PD is paramount to support teachers' professional learning (Guskey, 2002a; Opfer & Pedder, 2011a). King's (2016) framework offers guidance in ensuring the optimum conditions for effective PD, therefore this study employed the planning framework in order to create and maintain effective conditions for teacher professional learning for inclusive practice.

Conclusion

This chapter has presented the theoretical framework underpinning the research study.

Table 2.6 Theoretical Framework: Developing a PLC for Inclusive Practice

Theoretical Framework: Developing a PLC for Inclusive practice Planning for Effective PD (King, 2016)

- Baseline (*Individual/School*, *Targets*)
- Outcomes (Student outcomes, Organisational, Staff/teachers' practice, Diffusion)
- Systemic factors (Support, Initiative design and impact, Teacher agency)
- Learning Outcomes (Teachers' Practice)
- PD Experience (Activities/Experiences/Model)

Characteristics of Effective PLCs (Harris & Jones, 2010; O'Sullivan, 2011; Stoll et al., 2006; Vescio et al., 2008)	Key conditions for effective collaborative professional inquiry (Kennedy, 2014; King, 2014; Stoll et al., 2006, O'Sullivan, 2011)	Effective Pedagogies for Teacher Learning (Parker et al., 2016)
 Shared values and vision Collective responsibility for student learning Reflective professional inquiry Collaboration with colleagues Group, as well as individual, learning is promoted Mutual trust, respect and support Inclusive membership Openness, networks and partnerships 	 Leadership that promotes a learning culture and distributed leadership External expertise Time for collaboration Teacher agency Voluntary participation 	 Critical dialogue Public sharing of work Engagement in communities of learners

PLC underpinned by IPAA (Florian, 2014)

- Teachers must believe that difference is accounted for as an essential aspect of human development in any conception of learning
- Teachers must believe that they are qualified/capable of teaching all children
- Teachers must continually develop creative new ways of working with others

Evaluation of PD Impact (King, 2014)

- Baseline (Motivation, Expectations, Evidence Base)
- PD Experience (Activities/Model)
- Learning Outcomes (*Teachers*)
- Degree and Quality of Change (Organisational, Staff/Teachers' Practice, Student Outcomes, Diffusion)
- Systemic Factors (Factors that helped/hindered engagement with / sustainability of new practices)

The theoretical framework underpinning this study is informed by the IPAA (Florian, 2014), pertinent literature relating to creating and sustaining effective PLCs (Harris & Jones, 2010; O'Sullivan, 2011; Stoll et al., 2006; Vescio et al., 2008), effective pedagogies for teacher professional learning (Parker et al., 2016) and key research regarding planning and evaluating PD (King, 2014, 2016). In this chapter, Florian's (2014) IPAA framework was discussed with reference to three assumptions necessary for developing inclusive practice: rejecting deterministic beliefs about ability, teachers' beliefs in their capabilities to teach all children, and teachers working in new ways with other professionals to develop inclusive practice. In the examination of these assumptions, beliefs and attitudes to inclusion, teacher efficacy for inclusive practice and teacher collaboration were discussed. The value of the IPAA as a reflective tool for teachers to identify links between inclusive pedagogy theory and inclusive practice in the classroom was explored. The latter section of the literature review explored characteristics of teacher professional learning, effective models of professional development and planning and evaluating PD. In light of the literature relating to PD that effectively impacts teacher professional learning, it is proffered that a PLC which is underpinned by the IPAA could foster and develop positive teacher attitudes relating to inclusive education, teacher efficacy for inclusive practice and teachers' inclusive practice in the classroom. Therefore, this study aims to develop a PLC based on the theoretical framework above, to contribute to teacher professional learning for inclusive practice in a primary school. The following chapter outlines the methodological design employed in this study.

Chapter Three: Methodology

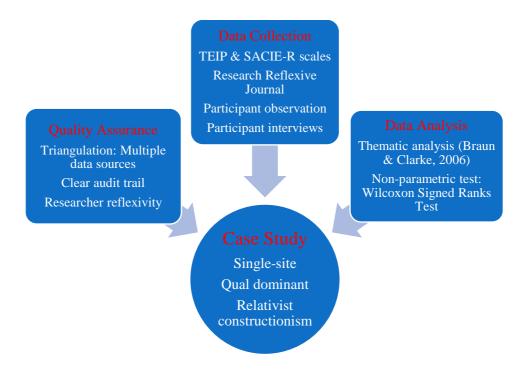
Introduction

This research study employed a predominantly qualitative, single-site case study approach, in which multiple methods of data collection were utilised to explore the research question which emanated from the theoretical framework: *To what extent does a professional learning community contribute to the development of teacher professional learning for inclusive practice in a primary school?*Sub questions related to the main research question included:

- To what extent does a professional learning community impact teachers' attitudes and beliefs towards inclusive education?
- To what extent does a professional learning community impact teachers' efficacy for inclusive practice?
- To what extent does a professional learning community impact teachers' practice in relation to inclusive education?
- What were the key factors that contributed to change in teachers' professional practice and learning during the six-month period of the PD experience?
- What were the factors that hindered teacher change in the research site?

This chapter explicates the philosophical assumptions underpinning the study along with the conceptual framework for the research design (Figure 3.1). The methodological approach to the research is discussed in detail with reference to sampling procedures, data collection methods, and ethical issues pertaining to the study. Subsequently, the rationale for the data analysis method is explained and analysis procedures are explored in detail.

Figure 3.1 Conceptual Framework for Research Design



Philosophical Assumptions Underpinning this Study

In choosing the paradigm that underpins this research study I considered the epistemological and ontological assumptions that inform my paradigm or worldview. Ontology deals with assumptions which are "concerned with the very nature or essence of the social phenomena under investigation" (Cohen, Manion & Morrison, 2011, p. 6). Researchers can vary greatly in their view of the social world as some will argue that it follows patterns and outcomes that are predictable, however others contend that human interactions are constantly contributing to the construction of the social world (Hesse-Biber & Leavy, 2011). A relativist position is adopted here, which acknowledges that reality is subjective according to the perceptions of people (Creswell, 2007). Adopting a relativist ontology serves to capture and embrace different realities through using

qualitative approaches, for example the use of quotes from different individuals can present different perspectives, meanings and interpretations (Creswell, 2007). A relativistic perspective seeks explanations and understandings of the particular case rather than a concern for generaliseable findings (Cohen, et al., 2011).

Epistemological assumptions are concerned with "...the very bases of knowledge – its nature and forms, how it can be acquired, and how communicated to human beings" (Cohen et al., 2011, p. 6). My epistemological assumptions relate to constructionism which acknowledges that meaning does not exist on its own but is constructed through the interactions between human beings and the interpretations that they make (Robson, 2011). Constructionism is similar to constructivism in the presumption that human beings make sense of their world through knowledge construction. However, constructionism is concerned with how groups make meaning of the world in which they live, while constructivism is concerned with the individual (Robson, 2011). Research methods such as interviews and observations are congruous with constructionism as they allow the researcher to record multiple perspectives and to co-construct the 'reality' with the research participants (Robson, 2011). Furthermore, a constructionist approach is flexible in that there is no fixed or prescribed method of research or data collection and allows the researcher to change course in response to needs that may arise during the data collection process (Robson, 2011).

Methodological Approach

A predominantly qualitative approach to research was deemed to align with my philosophical assumptions as described above and appropriate for answering the research questions. Qualitative research allows for detailed description of participant experience in the natural setting (Cohen et al., 2011). This was particularly suited to the employment of a PLC in this study as it involved interaction between the researcher and

the participants in their school context, thus aligning with my epistemological stance of constructionism. In the effort to explore the impact of a PLC on teacher professional learning for inclusive practice I, as the researcher, observed and recorded participant views and experiences in addition to taking a participatory role through engaging in discussion, interactions, and reflection with the participants. This participatory process aligns with my philosophical assumptions and a qualitative approach in which the researcher endeavours to make meaning of the participants in the study: "in a qualitative study, you are interested not only in the physical events and behaviours that are taking pace, but also in how the participants in your study make sense of these, and how their understandings influence their behaviours" (Maxwell, 2005, p. 22). In this study, my participatory role in the PLC afforded opportunities for rigorous observation of behaviours in the natural setting (Cohen et al., 2011, Creswell, 2007, Merriam, 1998, Robson, 2011). Five key qualitative research approaches were examined in order to determine an appropriate design for this research (Table 3.1).

Table 3.1 Choosing a Qualitative Research Approach (adapted from Creswell, 2007)

Research approach	Description of this approach	Strengths	Limitations in context of this study
Phenomenology	Concerned with human experience and how things are experienced by participants. Meaning and events are interpreted by social interactions	Focusses on the meanings and interpretations that emerge as participants engage in the PLC for inclusive practice	Emphasises description of the experiences. However, as the research questions illustrate, there is more to unpack in this study than description. E.g. understanding elements of the intervention that

			worked/did not work
Ethnography	Ethnography is concerned with describing a cultural group, how they work, their beliefs, and the influences of power and behaviours on this group	Value placed on the 'lived experience' where the researcher inhabits the natural setting in which the research takes place	Linked to anthropology. Predominately used for research emancipation for marginalised groups
Grounded Theory	The process where theory is generated as the researcher becomes more grounded in the data as it develops	Flexible process where the researcher is gathering data and generating theory that is central to the phenomenon i.e. PLC for inclusive practice	The process involves data gathering at the outset, where data is further informed by the literature review. This study draws on existing theoretical frameworks, which informed the intervention design and the research process.
Narrative	Describes the lives of individual, by detailing stories and accounts, and reporting individual experiences	Opportunity for participants to tell their stories in relation to their experience of the PLC	Typically focuses on an in-depth account of an individual e.g. life history approach. With this intervention, there was an exclusive focus on the impact of the PLC on teacher learning.
Case Study	Aims to understand a case in-depth and investigates a phenomenon with its real-life context. Focuses on process and outcomes.	Enables the researcher to understand the process and outcome of the PLC. Multiple sources of evidence	Findings are bound to the specific context and cannot be generalised to wider population

On consideration of the five qualitative approaches discussed above, a case study design was deemed most appropriate to this study. While case studies are predominantly associated with qualitative research, this study encompassed both qualitative and quantitative research methods. Although as is common in case studies that employs both, the qualitative methods were dominant (Robson, 2011). An important characteristic of the case study approach is that research is carried out on a "phenomenon within its real life context using multiple sources of evidence" (Robson, 2011, p. 136). This qualitative case study sought to "study the particularity and complexity of a single case, coming to understand its activity within important circumstances" (Stake, 1995, p. xi). The case in this context was a group of teachers in the "bounded context" of a PLC focused on developing inclusive practice (Miles & Huberman, 1994, p. 25).

One of the strengths of the case study is that it examines effects in a real environment while acknowledging that the environment has an impact on these effects, for example the impact of extraneous environmental variables on the PLC in this case (Cohen et al., 2011). The descriptive nature of this case study design provided insight into the impact of the PLC teacher learning for inclusive practice through describing the "complex dynamic and unfolding interactions of events, human relationships and other factors" (Cohen et al., 2011, p. 253). Case studies are heuristic in that they can uncover new meaning, providing further knowledge on a phenomenon, in this case the PLC, or confirm what is known (Merriam, 1998). The particularistic, descriptive and heuristic qualities of case studies can provide a holistic and detailed explanation and analysis of a unit of study (Merriam, 1998). Like all research methods, the case study is not without its criticism, some of which labels it as a 'soft option' in comparison to other research methods as is viewed by some as a precursor to more extensive research studies

(Robson, 2011). However, the case study "should not be demeaned by identification with the one-group post-test-only design" (Cook & Campbell, 1979, p. 96). The enthusiasm for experimental research is the pursuit of verification for "what works" in education (Biesta, 2007 p. 3). However, education is "at its heart a moral practice rather that a technical or technological one" and value judgments about what actions are appropriate and what is "educationally desirable" are therefore key (Biesta, 2007, p. 10).

Another limitation of case studies relates to limited generalisability of findings due to the unique context of the study (Cohen et al., 2011). However, I was more concerned with generalisation to broader theory rather than to the population (Yin, 2009). Furthermore, this case study may be a 'step to action' (Cohen et al., 2011, p. 256) in that the findings may be utilised in the context from which they emerged, influence future research, or inform educational policy-making (Merriam, 1998). It is envisaged the employment of a case study design in this context will provide a "test bed" (Robson, 2011, p. 139) for the exploration of how a PLC can contribute to teacher learning for inclusive practice. Other criticism of case study design points to an inclination towards researcher bias and subjectivity due to the researcher being a participant and an observer (Cohen et al., 2011). As PLC facilitator, I participated in the PLC through engagement in dialogue with the participants while also making observations as researcher. However, while observer bias can impact on the case study in this regard, I ensure that I addressed reflexivity throughout the research. This required me to explore my positionality in relation to the study.

Positionality

In this study I, as the researcher, collected the qualitative data through observation, field notes, and interviews which enabled me to make a detailed analysis

of the phenomenon under study. As the researcher I also acted as a research instrument in the case study and therefore endeavoured to reduce researcher effects through the comprehensive application of reflexivity. This pertains to researchers acknowledging and disclosing "their own selves in the research, seeking to understand their part in, or influence on, the research" (Cohen et al., 2011, p. 225). In order to address reflexivity in this study it was important to explore my positionality in relation to the study as "all writing is 'positioned' and within a stance (Creswell, 2007, p. 179). As previously mentioned I had supported the school in my position as a PDST literacy advisor. This support was provided in the form of a once-off workshop on the teaching of comprehension. However, I was on secondment from my role of primary teacher in addition to acting as the researcher. As noted by De Laine (2000), the researcher adopts diverse roles in qualitative research and it usually not possible to plan these roles in advance, which results in ethical challenges for the researcher that require constant negotiation. One such challenge is 'marginality' that is common in fieldwork where the researcher is in the organisation, but is not part of it and must balance his or her role between 'familiarity' and 'strangeness' (Hammersley & Atkinson, 1983, pp. 97-9).

In addition to the management of 'marginality' in my role as facilitator of the PLC, I was aware that the formal role that I had as a PDST advisor was quite different to the role I had as the researcher and PLC facilitator within this study. The review of literature on teacher professional learning heightened my awareness of the impact of various models of PD on teacher learning. My role as an advisor restricted me to working with transmissive models of PD, while my role as a researcher and PLC facilitator was focused on developing a model of PD which has shown to hold promise for transforming teacher learning. While I experienced professional conflict in that I did not agree with the approaches to PD that I was required to provide in my professional

role, I adopted reflexivity by ensuring own personal views were not communicated to the participants. This involved close monitoring of researcher reaction that might impact the research and is key to maintaining trustworthiness (Cohen et al., 2011; Hammersley, 2007).

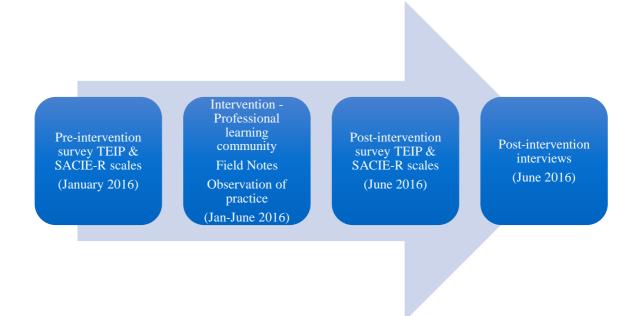
As I was also a primary teacher, the participants may have viewed me as an 'insider' (Mercer, 2007). Although as noted by Mercer, the participant view of the researcher as an insider can appear along a continuum and that for some topics or interviews I may have been considered an insider, but not for others. This could have potentially resulted in informant bias where the participants consciously or unconsciously make statements that they perceive to be what the researcher wants to hear. I was also aware of my position as a doctoral student in inclusive and special education who was the PLC facilitator and therefore the outside 'expert' may have had an impact on power relationships (Mercer, 2007). In order to maintain reflexivity, I was committed to creating a comprehensive and through account of the area of study through analysis of participants' views, behaviours, and engagement, to understand the extent to which the PLC contributed to their learning for inclusive practice. (Creswell, 2008). Furthermore, I was aware of reciprocity during the PLC sessions in terms of avoiding sharing my own experiences that could influence the participants to make contributions aimed to please the researcher (Creswell, 2008).

Research Methods

Participant observation, interviews and field notes are the dominant methods of data collection in naturalistic inquiry and were employed in this study (Cohen et al., 2011). In addition to these data collection methods, participant scales were employed pre- and post-study to measure any changes in beliefs and attitudes towards inclusive

practice and teacher efficacy for inclusive practice. The data was collected over a sixmonth period from January to June 2016 as outlined below.

Figure 3.2 Timeline of Data Collection



Sampling Procedure

Non-probability sampling was employed in this study as is common in small-scale qualitative research where the focus is on an in-depth study of a sample, rather than generalising to the population (Cohen et al., 2011). Stake (1995) emphasises this point by stating: "case study research is not sampling research. We do not study a case primarily to understand other cases. Our first obligation is to understand this one case" (p. 4). Purposeful or purposive sampling (Creswell, 2007; Merriam, 1998) was used to select a sample which provided the researcher with ample material to study. The research site was identified when I had provided PD support to the school in my role as an advisor with the PDST. After this support, I had an informal discussion with a teacher regarding inclusion and mentioned my research study. This teacher expressed

interest in the research and suggested that I discuss it with the principal, who he believed would also be interested in the study. Subsequently, I approached the principal, who was very positive towards the school becoming involved. He was agreeable to holding the PLC meetings during 'Croke Park" hours which is the noncontact time that teachers are required to engage in arising from public sector reform negotiations (Department of Public Expenditure and Reform, 2010). He requested an email with a brief description of the research which he circulated to the staff via email. Following this, I made a presentation to the teaching staff at the research site in order to invite interested parties to participate in the PLC. After the staff meeting interested parties were invited to meet with me for further details. Subsequently, eight class teachers expressed interest in participating in the PLC along with the principal and deputy principal, who both worked in administrative roles. The class teachers taught in a range of classes. Table 3.2 presents pseudonyms for each teacher as well as characteristics including: gender, teaching experience and class level (Junior class level: Junior Infants/Senior infants/First Class, Senior class level: Third/Fourth Class)

Table 3.2 Participant Characteristics

Pseudonym	Gender	Teaching Experience	Class Level
Diane	Female	4 – 7	Junior
Hilary	Female	4 - 7	Junior
Kieran	Male	8 - 10	Junior
Rebecca	Female	1 - 3	Junior
Niall	Male	1 - 3	Junior
Niamh	Female	4 - 7	Senior
Anne	Female	4 - 7	Senior

Emily	Female	1 - 3	Senior
Deputy	Male	11+	Administrative
Principal	Male	11+	Administrative

Pre and post study scales

In order to determine if the PLC impacted on changes to the efficacy beliefs of the participants in relation to implementing inclusive practices in the classroom, and their attitudes towards inclusive practice, the Sentiments, Attitudes and Concerns about Inclusive Education Revised (SACIE-R) and Teacher Efficacy for Inclusive Practices (TEIP) scales (Forlin et al., 2014) (Appendix C) were administered pre-and post-study. These scales were chosen as they aligned with the IPAA. The SACIE-R scale related to the IPAA assumption of rejecting deterministic beliefs about ability, while the TEIP related to the assumption of teachers believing in their capabilities to meet the needs of all learners. A full description of both scales is outlined in Appendix B.

Field Notes

The PLC was held on a monthly basis between January and June 2016 (Table 3.3). Each session lasted approximately 90 minutes and encompassed effective pedagogies that supported the development of inclusive pedagogy (Florian, 2014; Parker et al., 2016)

Table 3.3 Outline of PLC Meetings

PLC Meeting	Participants	PLC Content
13 th January 2016	7 teacher participants	Discussion re. inclusion v inclusive
	(Absent: Niall)	practice
		Introduction to and discussion re.
		IPAA
		Exploring differentiation strategies,
		focus on differentiation through
		choice
		Planning for implementation

10 th February 2016	8 teacher participants	Reflective discussion re. IPAA
	(Emily, Diane, Anne	Think, pair, share: reflection on new
	left 15 minutes early)	practice implemented
		Public sharing of work
		Concerns: problem solving
		Discussion re. lesson study
		Planning for implementation
9 th March 2016	5 teacher participants,	Reflective discussion on experience
	Principal and Deputy	so far – link to IPAA
	principal	Think, pair, share: public sharing of
	(Absent: Niamh,	work
	Kieran)	Concerns: problem solving
		Planning for implementation
27 th April 2016	5 teacher participants	Reflection on previous month
	(Absent: Anne,	Think, pair, share: strengths and
	Hilary)	challenges of inclusive practice,
		problem solving– link to IPAA
		Public sharing of work
		Planning for implementation
18 th May 2016	6 participants: 4	Reflection on previous month
	teachers, Principal and	Think, pair, share: strengths and
	Deputy principal	challenges of inclusive practice,
	(Absent: Anne,	problem solving – link to IPAA
	Rebecca, Niamh)	Public sharing of work
		Planning for implementation
15 th June 2016	10 participants	Reflection on previous month
	(Audio recorded and	Reflective discussion on PLC
	transcribed)	experience as a whole: impact on
		practice, strengths and challenges,
		going forward – link to IPAA

In each PLC, there was reflective discussion on the work from the previous month and discussion about possible actions for the following month (see Appendix F for further details). In addition, the participants completed a reflective log at the end of each session in order to critically reflect on any new learning and to guide the researcher for the following session (Appendix G). Some participant reflective logs (PRL) were not completed as participants left early due to other commitments. I suggested forming a WhatsApp messaging group for organisational purposes which the participants agreed would be useful. This was particularly useful to communicate with the participants who had left the PLC sessions early or had been absent, as I could send summary

information and the ideas for implementation that had been agreed in the PLC to the group as a whole. This served as a reminder to the participants who had been present and was helpful to the teachers who were absent. I anticipated more communication such as questions through the WhatsApp group but there was little use of this messaging tool apart from thanking me for the sessions. The researcher had a dual role as participant observer and researcher within the PLC. During the PLC meetings, the researcher took field notes which were later expanded upon in a researcher reflexive journal (RRJ) a sample of which can be found in Appendix H. The purpose of the RRJ was to record observations of the participant engagement in the PLC meetings while also maintaining reflexivity. The final PLC was audio recorded and transcribed to capture the full extent of the evaluative and reflective dialogue at the end of the study.

Participant Observation

At the information meeting prior to the commencement of the study, I mentioned that observation of practice would be part of the research but that participation in such would be voluntary. In PLC 1 (13/1/2016), the participants were invited to consider participating in observation on two occasions; early in the study and towards the end of the study. I asked the participants who were interested to respond to me privately through a WhatsApp messaging service to avoid any participants feeling pressured to participate. Four teacher participants (Kieran, Rebecca, Diane and Hilary) responded to this request. In terms of observation of teachers' practice in the classroom the participant role of the researcher became a participant-as-observer role (Robson, 2011). The benefit of this type of data gathering is that it offered an opportunity to "gather 'live' data from naturally occurring social situations' (Cohen et al., 2011, p. 456). I could record exactly what was occurring in the research site rather than depending on second-hand accounts from participants (Cohen et al., 2011). Furthermore, observation

afforded me the chance to take account of behaviours that might be overlooked or unnoticed. A summary of the lessons observed is provided in table 3.4 while further details can be found in Appendix I. Observation of practice allowed me to explore the extent to which four participant teachers engaged in inclusive practice in the classroom. Semi-structured observation was used which involved use of an observation schedule (Appendix J) based on Florian's (2014) IPAA and the levels of use from the PD Evaluation framework (King, 2014). I was conscious of distributing attention in a wide and even manner to avoid bias of attention during observation, and field notes taken in situ were transcribed promptly and expanded upon in detail (Robson, 2011). The field notes included a summary of the lessons observed, while the observation schedule analysed the practice in terms of inclusive pedagogy.

Table 3.4. Summary of Lessons Observed

Observation of Practice: Summary of Lessons		
Participant	10 th February 2016	18th May 2016
Diane	Aistear: The teacher presents the choices for "play stations". The theme this month is space and there is an imaginary play corner with a cardboard spaceship and space themed materials, a sand box, painting, construction area with wooden blocks and connective materials to make space aliens. Teacher calls on a child who didn't get her first choice yesterday to choose first and then goes to different tables to ask children for their choices.	Choice centres: Children have been working on mini beasts for last fortnight and have participated in a beast hunt. Teacher offers choice of activities to children. Each child must create their mini beast through plasticine, drawing or writing. Teacher demonstrates how to do each activity. Templates for writing and drawing (with mini beast border) as well as plasticine mats placed at top of room, when children are called they choose an option but go back to their regular table.
Hilary	(14 th March) Aistear: Teacher had names of children on pegs and pictures on a line representing the various stations: Blocks, Small world: Circus, Ticket office for circus, Junk yard Children's names picked and children chose which station. When station became full they chose another. Teacher circulated	Choice centres: Choice of activity to develop predictions about what happens next in story read by teacher. Teacher explains each activity twice. Teacher calls names, pupils put peg on their choice. • Drawing: what happens at end of story? • Writing: Write about what happens next

	around the stations to briefly discuss what the children were doing. Teacher commented how her colleague took note of children who didn't get first choices so she could accommodate them the following day and how she was going to take that approach but so far there had been no complaints about not getting first choice.	Creating: Plasticine Acting: masks for ants, act what happens next Teacher invites everyone back to the mat after activities and asks them to turn to partner "knee to knee" and to find out what their partner thinks will happen next.
Kieran	Choice centres: Class teacher reminds the children of the story that he has read to the class "The Twits". Teacher explains that they are going to choose and activity based on their favourite part of the story. • Dictaphone: recoding your favourite part of the story • Writing: Write about your favourite part of the story • Role-play: use the props to act out your favourite part of the story • Plasticine: create your favourite part Pupils place lollipop stick with name on activity of choice.	Lesson on sight words: Teacher asks each child chose tricky words to improve. Choice of partner — children asked to quietly find a partner and put arms around partner when ready. Teacher had to assign partners to children who did not find a partner. Each pair asked to decide who will be A and who will be B. Some pupils can read all words (teacher previously tested the class) and asks these pupils to help pairs in identifying words and testing Self-assessment: Each child asked to identify 3 tricky words from the word wall that they don't know Peer assessment of tricky words
Rebecca	Choice board: Use of choice broad on the whiteboard based on story class has read together. Teacher explains choices to class. Crystal Ball (Children draw/write predictions in a crystal ball template) Shopping List (Children create a shopping list of items for Mr. Wolf's pancakes) Talk to a friend (Children talk to a friend about main events of the story) Puppets (Children use puppets to act out the story)	(15 th June) Lesson on sight words: Children choose three tricky words from word wall that they do not know. Each pupil was expected to take part in same activity but teacher had organised mixed ability pairs – tutor and tutee without it being overt to the children. Children given responsibility for own learning – identify the words you need to learn, using the template to write down the words from the word wall – testing each other. Peer assessment of tricky words.

Interviews

Semi-structured interviews were used in this study in which an open-ended schedule of questions was prepared (Cohen et al., 2011). Interviews are a valuable source of data collection in qualitative research as they "enable participants to discuss

their interpretations of the world in which they live, and to express how they regard situations from their own point of view" (Cohen et al., 2011, p. 409). In case studies the researcher is concerned with the multiple realties of the participants and the interview provides the main vehicle for discovering and presenting those multiple realities (Stake, 1995). The purpose of the interviews in this study was to gather in-depth information on the participants' experiences of the PLC and the impact of the PLC on the participants' learning regarding inclusive practice, as well as its impact on teacher practice and pupil learning. The interview questions (Appendix K) were based on King's (2014) PD Impact Evaluation Framework (Appendix D) which is closely related to the PD Planning Framework (Appendix E) (King, 2016). The exact same questions are rarely asked of each participant in a qualitative case study as each participant may have had a distinctive experience or a unique story (Stake, 1995). The semi-structured nature of the interview schedule employed in this study allowed the researcher flexibility and spontaneity to probe answers further and to use additional unplanned questions to address unforeseen comments that arose (Cohen et al., 2011).

The interviews were conducted after the final PLC session had taken place in June 2016. Each class teacher was interviewed individually following the same schedule which was open-ended. The interviews for the school principal and deputy principal was slightly different as they did not fully engage with the PLC. The principal and deputy principal were in administrative roles and were not in a position to engage in developing classroom practice. The interviews lasted approximately thirty minutes. Steps were taken to ensure that the interview was conducted in a quiet space without interruptions and that the interviewee was made feel comfortable (Robson, 2011). The initial conversation with interviewees centred on assurance of confidentiality and anonymity and an explanation of how the research findings would be used, stored, and

disposed of after use. After consent for recording was obtained, a relaxed atmosphere was created in which the interviewee was reassured that the recording could be stopped at any time, and that withdrawal from the interview and destruction of the data gathered was at the discretion of the interviewee (Stake, 1995). The researcher endeavoured to conduct the interview with absence of judgement and the withholding of own biases and values (Cohen et al., 2011).

Procedures to Maximise Validity, Reliability and Generalisability

As the case study is carried out in a unique context, principles of validity and reliability were followed in undertaking this research such as avoidance of bias and ensuring transparency of findings, supported by evidence and triangulation of data (Cohen et al., 2011, p. 295). The extent to which reliability and validity can be assured in qualitative research has been contested (Denzin & Lincoln, 2011). Reliability and validity are "operationalized so rigidly in fixed design quantitative research" therefore the challenge for qualitative researchers is "to find alternative ways of operationalising them appropriate to the conditions and circumstances of flexible design research" (Robson, 2011, p. 156). Qualitative researchers need to ensure the credibility of their research by addressing a number of criteria (Merriam, 1998) such as internal validity, reliability, and external validity.

Pilot Study

In order to maximise the validity and reliability of the data collection instruments a pilot study was undertaken. This involved piloting the observation schedule in a primary classroom with a teacher who was not a research participant, and piloting of the interview schedule with another primary school teacher who was also not participating in the study. The piloting of these two instruments took place in a separate context from the research site. The participant interviewee was a SEN teacher known to me from my

own school context and the observation participant was another teacher known to me from the same context who had previous experience of learning support and resource teaching. The pilot process for the observation schedule was helpful as it highlighted some necessary minor modifications to the structure of the schedule. For example, it was initially intended to record when various inclusive practices were used in the lesson but this proved difficult as some practices permeated the lessons and could not be pinpointed to a stage. Instead it was decided to observe the level of use relating to inclusive practices which related to the PD Evaluation Framework (King, 2014), which provided more in-depth information regarding to the teachers' practice. The TEIP and SACIE-R scales were not piloted as they have been used and validated in previous studies (Forlin et al., 2014) (Appendix B).

Internal validity

This relates to the congruence of the research findings with reality. As the researcher interprets the findings, the reality is likely to be changed to some degree. In order to maximise the internal validity it is important to use triangulation or multiple sources of data to verify the emerging findings (Robson, 2011). In this study, the data were gathered over a six-month period in the study and this type of long term observation adds to the validity of the findings (Merriam, 1998). Case studies can pose possible threats to the validity of the data analysis as the researcher can fall victim to bias due to his or her invested role (Shaughnessy, Zechmeister & Zechmeister, 2003). I as researcher endeavoured to take account of myself in the research through generating constructs from the data collected and engaging in meaningful reflection. While bias cannot be eliminated from qualitative research and it must be carefully controlled, therefore by encompassing reflexivity, the validity and reliability of the research can be

maintained (Creswell, 2007). As indicated earlier in the chapter, the use of a reflexive journal was employed which aided the sustenance of internal validity in this study.

Construct Validity

This is related to "identifying correct operational measures for concepts being studied" (Yin, 2009 p. 40). This research explored the impact of a PLC on teacher professional learning for inclusive practice. The terms "impact" "PLC", "professional learning" and "inclusive practice" were defined and discussed in Chapters One and Two. An evidence-based framework (King, 2014) was identified to assess the impact of the PLC on teacher learning for inclusive practice. This framework facilitated the examination of factors that helped or hindered teacher learning at the research site, which augments the construct validity of this study.

External validity

This relates to the generalisability of the research findings (Merriam, 1998). As mentioned previously, case studies can have limited generalisability due to the small-scale nature of the research (Stake, 1995). However, much of what can be learned from a single case may be general, in part through merging knowledge from familiarity with other cases (Stake, 1995). Stake (1995) describes this potential learning as naturalistic generalisations which "are conclusions arrived at through personal engagement in life's affairs or by vicarious experience so well constructed that the person feels as if it has happened to themselves" (p. 85). This study assists the reader in creating naturalistic generalisations through ensuring that an opportunity for a vicarious experience is constructed (Stake, 1995). The provision of a rich, thick description of the case, the research methods, and the findings, provides the reader with the opportunity to explore and compare his or her own context with the research case, and therefore determine if

the research findings are relevant to his or her own situation (Merriam, 1998; Stake, 1995).

Reliability

This relates to the consistency of the research and the degree to which it can be replicated which can be a challenge in qualitative research as human behaviour is subject to change (Merriam, 1998). In this study, the reader is provided with "a chain of evidence" to explicate every step in the research for other researchers (Yin, 2009, p. 41). This includes the time and date during which the data were collected which adds to the thick description of and the replicability of the study (Yin, 2009). The trustworthiness of the study is enhanced through data triangulation involving multiple sources of data (Hammersely, 2007). Furthermore, an audit trail is provided which detailed description of the data collection procedures used, the selection of categories, and decision making throughout the study. This is essential for clarifying how the researcher arrived at the results and increases the reliability of the study (Hammersley, 2007; Merriam, 1998).

Ethical Considerations

The purposes and procedures of this study were explicitly outlined to all participants in a plain language statement (Appendix L) prior to initiating the research. Consent to undertake research was initially sought from the school principal. Subsequent contact was made with the potential participants through an informal briefing session in which the study was outlined as per the plain language statement to all members of the teaching staff at the research site. After this briefing session, a copy of the plain language statement and informed consent form (Appendix M) was given to each potential participant. Upon receipt of the signed consent forms from the participants there was discussion about the development of the PLC and the pre-study

scales were administered. Separate consent forms were used for participants who agreed to engage in observation of practice (Appendix N). Informed consent is necessary to ensure the participants' self-determination (Cohen et al., 2011). While it is important to obtain informed consent, the researcher must be cognisant of some potential threats to the validity of the research as a result of informing participants of the nature of the study. One such ramification is the change in the normal behaviour of participants or the "Hawthorne effect" (Cohen et al., 2011, p. 81). Ethical issues around anonymity and confidentiality were carefully considered by the researcher. No personal details that might reveal a participant's identity were used (Robson, 2011). All participants were assured of their right to withdraw from the study at any time, without any adverse consequences (Cohen et al., 2011). Ownership of the data collected will be retained by the researcher, which was made apparent to the participants prior to the research study and in the obtaining of consent (Porter & Lacey, 2005). The dissemination of research findings and feedback was offered to participants and will be provided upon request.

Data Analysis

This study generated a large data set which includes interview transcripts, pre and post study scales, participant observation, and participant and researcher reflections on the PLC sessions. Miles and Huberman (1994) emphasise the importance of reducing data overload throughout the research process by writing summaries, memos and document sheets in order to keep track of the data and also to reduce unnecessary data, which was an approach undertaken in the data collection process in this study. The use of a qualitative data analysis (QDA) package, NVivo 11.4, was employed in this study which aided data organisation and structured exploration of the data. However, a QDA package cannot analyse or interpret the data, this can only be done by the

researcher (Robson, 2011). A thematic analysis approach based on the work of Braun and Clarke (2006) was utilised in this study. Thematic analysis involves "identifying, analysing, and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail" (Braun & Clarke, 2006, p. 6). A theme refers to an important aspect of the data that relates to the research question and illustrates a type of response that follows a pattern within the data (Braun & Clarke, 2006; Robson, 2011). Prior to identifying themes, it is necessary to generate initial codes which in essence are interesting features of the data (Braun & Clarke, 2006). Coding is an important part of analysis that allows the researcher to organise the data into relevant categories (Miles & Huberman, 1994). First-level coding involves labelling groups of words and following this second-level coding reduces the initial codes into a fewer number of themes (Miles & Huberman, 1994). Once the coding was completed in this study, the codes were collated into broader themes and sub-themes which were later reviewed and refined (Braun & Clarke, 2006) (Table 3.5).

Table 3.5 Six Step Approach to Thematic Analysis (Braun & Clarke, 2006, p. 35)

1.	Familiarising yourself with the data:	Transcribing the data, reading and re- reading the data, noting initial ideas
2.	Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3.	Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4.	Reviewing themes:	Checking that the themes work in relation to the coded extracts (Level 1) and the

entire data set (Level 2), generating a thematic 'map' of the analysis/

5. Defining and naming themes: Ongoing analysis to refine the specifics of

each them, and the overall story the analysis tells; generating clear definition

and names for each theme.

6. Producing the report: The final opportunity for analysis.

Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the

analysis.

The steps in thematic analysis are not linear as the researcher must move back and forth in analysing the data and reviewing the findings (Robson, 2011). Phase one of the coding process involved familiarisation with the data set. At the beginning of this process the interviews were transcribed and collated with the data which had been transcribed throughout the research; observation schedules, field notes from the PLCs in the researcher reflexive journal (RRJ) and participant reflective logs (PFL) from each PLC. The participant reflective logs from the PLCs were anonymous to encourage honest reflection from participants to inform subsequent PLC meetings. This was the only qualitative data that could not be attributed to a source. The transcribed data was re-read and initial ideas were noted by the researcher. This data was imported into NVivo 11.4 along with the literature. Phase two involved the identification of interesting features or initial codes from across the data set. Examples of such initial codes include sharing ideas, modes of learning, ability labelling (Appendix O). At this stage 30 codes were identified which were then collated into 11 themes in Phase Three (Appendix P). For example, initial codes such as lesson study, team teaching and

sharing ideas were collated into the theme 'collaboration'. Following this the themes were reviewed in relation to their relevance to the coded extracts which resulted in seven themes (Appendix Q). The final round of coding involved refinement which resulted in the generation of definitions and names for each of the seven themes (Appendix R). Coding sources and types are detailed in Appendix S.

The coding process and identification of subsequent themes was in part informed by the literature in this analysis approach. The data analysis process drew upon the PD Impact Framework King (2014) and the IPAA framework (Florian, 2014). Although deductive analysis is criticised by some for leading to researcher bias (Robson, 2011), it is also argued that this approach can heighten the researcher's awareness of features of the data that may otherwise be overlooked (Tuckett, 2005). While deductive analysis was employed there was also inductive analysis where themes arose that were unforeseen. For example, "multiple modes of learning" was an unanticipated theme that arose from the data. When identifying themes, it is important that the researcher takes a coherent approach which is not just based on description (Bazeley, 2009). Bazeley (2009, p. 8) advocates the "describe, compare, relate" formula for thematic data analysis. Description is an important starting point for identifying themes but it is not sufficient alone. A detailed comparison of the characteristics of themes across the various contexts is also essential in addition to relating themes to previous themes that arise (Bazeley, 2009). Divergent views are also important in analysing the data as they add to a deeper understanding of the findings (Miles & Huberman, 1994). Detailed analysis of the identified themes and sufficient evidence of the presence of such themes is paramount to providing a coherent account of the story generated by the data (Braun & Clarke, 2006). In my data analysis, extracts from the data provide examples of occurring themes and are embedded within an analytic

narrative which examines the data in relation to the research question (Braun & Clarke, 2006).

A statistical analysis software package (SPSS) was used to analyse the SACIE-R and TEIP pre- and post-study scales. Due to a small sample size, a non-parametric test was used, specifically the Wilcoxon Signed Ranks Test for repeated measures (Connolly, 2007). The findings from the qualitative and quantitative data analysis (Appendix T) are discussed in the following chapter.

Conclusion

This chapter has provided an overview of the methodological approach used in this study. The philosophical assumptions of relativist constructionism underpinning this study were outlined. Subsequently, a predominantly qualitative case-study design was deemed appropriate for this research study. This research design was discussed in relation to its strengths and possible shortcomings, in addition to how these were addressed. Clarification was provided regarding the aspects of methodological rigour that were considered to ensure validity and reliability of the research. Ethical considerations were outlined and finally the data analysis approach was described. The following chapter will detail the research findings from this research study.

Chapter Four: Research Findings

Introduction

In this chapter, the research findings from the study are presented and explored, while the discussion of the findings is presented in the following chapter. The development of the PLC was informed by the theoretical framework outlined in Chapter Two (Table 2.3) and subsequently evaluated according to the PD Evaluation framework (2014) (Appendix D). The PLC was underpinned by the Inclusive Pedagogical Approach in Action (IPAA) framework (Florian, 2014) (Appendix A).

Table 4.1 Key Features of IPAA Framework (Florian, 2014) and PD Evaluation Framework (King, 2014)

IPAA Key Assumptions	PD Evaluation Framework: Key Considerations
 Difference is accounted for as an essential aspect of human development in any Teachers must believe that they are qualified/capable of teaching all children 	 Baseline PD Experience Learning outcomes Degree and quality of Change Systemic factors
3. Teachers continually develop creative new ways of working with others	

The analysis of data collected from multiple research instruments including; SACIE-R and TEIP pre- and post-PLC scales, observation of practice, field notes recorded in the researcher reflexive journal (RRJ), participant reflective logs (PRL) and participant interview transcripts, is presented and explored in order to answer the research questions (Table 4.2).

Table 4.2 Research Questions

- 1. To what extent does a PLC impact teachers' attitudes and beliefs towards inclusive education?
- 2. To what extent does a PLC impact teachers' efficacy for inclusive practice
- 3. To what extent does a PLC impact teachers' practice in relation to inclusive education?
- 4. What were the key factors that contributed to change in teachers' professional practice and learning during the six-month period of the PD experience?
- 5. What were the factors that hindered teacher change in the research site?

The data presented is descriptive and themes that emerged from the data analysis are explored to answer each of the above research questions. The final themes from phase five of the data analysis include; changes in teachers' attitudes and beliefs towards inclusive practice, changes in teachers' efficacy for inclusive practice, changes in teachers' practice, factors that supported teacher change, and factors that hindered teacher change (King, 2014).

Teachers' Attitudes and Beliefs Towards Inclusive Practice

This section explores the research findings relating to the impact of the PLC on teachers' attitudes and beliefs towards inclusive practice. It begins by outlining the motivating factors for participation in the PLC which was important in terms of planning the PD to align with teachers' needs (King, 2016) and the participants' initial conceptions of inclusion which demonstrate their attitudes and beliefs towards inclusive practice at the beginning of the study. The evidence of teacher learning is discussed in relation to changes in participants' beliefs about ability, differentiation and multiple

modes of learning, and finally findings relating to shifts in participants' conceptions of inclusion are reported.

Motivation for Participation: Inclusion of Pupils with SEN

The motivation for and expectations of engaging in the PLC was explored at the outset of the field research and again in the interviews. In the initial meeting which outlined details of the study to interested participants, there was an invitation to voice challenges to developing inclusive practice in their own classrooms. The participants expressed concerns about particular pupils with SEN and in an effort to adopt a focus that would be appropriate for all pupils, the researcher suggested exploring how differentiation by choice could contribute to inclusive practice. The participants expressed interest in this topic and it subsequently became the core focus of the PLC. It is interesting that no learning support/resource teachers participated in the study. This could be attributed to the dominance of the withdrawal approach in the school setting and perhaps a belief that the study was more relevant to class teaching. The school was just introducing team teaching during the 2015-16 academic year, which was being led by the Deputy Principal who believed that the PLC would align with the development of this approach: "I felt it was something that would lend itself to team teaching which we are piloting this year and we hope to build on that, that was my main interest" (Deputy Principal, Interview). The Principal was interested in the PLC as it was congruent with his own beliefs as well as the school ethos:

I think personally that education is for all children and only in the rarest circumstances should a child be excluded...we are an Educate Together school, a central core philosophy is inclusiveness on the basis of ethnic background or intellectual capacity, we are a school for all children as far as possible (Principal, Interview)

The Deputy Principal and the Principal were motivated to participate as the PLC aligned with whole school approaches that they wanted to develop. In contrast, the class teacher participants' motivation for participating related to including pupils with SEN more effectively in their classrooms:

I originally came to the group because I have a boy in my class with Down Syndrome who started this year and there's a boy from the ASD unit who comes down for mainstream integration in my class (Diane, Interview).

Diane's comment was indicative of the class teachers as a group. The focus on including pupils with SEN, rather than inclusion of all learners may be due to the view of the terms 'inclusion' and 'inclusive practice' connoting an emphasis on pupils with SEN in education policy. Kieran had experience in the ASD class and in a learning support role, and had completed the state funded Postgraduate Diploma in Learning Support and SEN, and subsequently a Masters in SEN. He seemed to have a deeper conceptual knowledge of inclusion and inclusive practice than his counterparts:

The first time I heard what inclusion was, was on the postgrad and had I not done it I wouldn't know what it was. It's a term that people throw around but don't fully understand the difference between integration and inclusion. They use it interchangeably and that's dangerous. You hear people saying oh we're fully inclusive and look we have this child with SEN in the class but if he's sitting down the back doing something else it's not inclusion, that's not the point. (Kieran, Interview)

He associated inclusion with including children with SEN in mainstream classes and was enthusiastic about developing inclusion in the school: "I feel that we're on the cusp of being more inclusive but there's always more we can do" (Kieran, Interview). Kieran was the most experienced member of the PLC group in terms of number of years teaching, aside from the two school leaders. However, he felt that he needed further support in developing inclusive practice. Unlike the other participant teachers, Kieran had an additional motivating factor for participating in the PLC in that he wanted to

develop inclusive practice in the school in general, as well as in his own classroom. He had was a member of the in-school middle management team which could explain his motivation for developing inclusive practice across the school. The class teachers (7/8) expected to gain ideas from the PLC: "Just new ideas and if you have any problems or issues to get advice from other people so you're not on your own in your own room by yourself' (Anne, Interview). The teachers' motivation for and expectations of participation differed from the school leaders in that it stemmed from their day to day teaching in their own classroom contexts. This reflects what has been noted elsewhere—that teachers are more concerned with what is happening in their own classrooms above school or national concerns (Fullan & Miles, 1992; Morgan et al., 2010). Additionally, the participant motivation to include pupils with SEN more effectively correlated with the research findings of the IRIS project (Rose et al., 2015) which revealed that while teachers in case study schools were committed to the inclusion of pupils with diverse learning needs, there was a significant number of teachers who felt they had insufficient specific knowledge to adequately meet the various learning needs in their classes.

Initial Conceptions of Inclusion

The participants' conceptions of inclusion at the outset of the study predominantly pertained to including pupils with SEN. Interestingly, Niamh remarked that she thought she might not have enough difficulties in her class to warrant her engagement with the PLC:

At first I was a little apprehensive because I thought did the children in my class have enough needs if that makes sense? There isn't an SNA in my room and nobody with a report for ASD or ADHD. The children that I signed up for have dyslexia and that was something that I was worried about, that would everyone be taking about problems they had with a different area to me? Would our needs be completely different? (Niamh, Interview).

Niamh did not have any pupils with 'low incidence' disabilities in her class and perhaps the conception of different categories of disability requiring 'specialist' pedagogies can be attributed to the reason for Niamh's apprehension about her participation in the PLC. Low incidence categories refer to less common categories of disability that are awarded resource teaching hours (DES, 2005). This relates to the hegemonic deficit model of disability which perpetuates the notion that a student identified as having a learning disability needs something different to the education provided in regular classrooms (Florian, 2014). As a result, teachers can feel that they are not equipped to meet the needs of children with diagnosed learning disabilities (Florian, 2014).

I presented the focus of this research to the participants as developing inclusive practice to effectively include all learners in the classroom. Interestingly, the participants' view of inclusion pertained to pupils with SEN in the main rather than pupils without SEN or other children at risk of marginalisation. The only reference to including children other than those with SEN was regarding a child with EAL who Emily was concerned about (RRJ: PLC 1, 13/1/2016). However, she did mention that it was possibly more than a language issue and that maybe the child had a SEN. Arguably, due to the Educate Together ethos of celebrating diversity, as highlighted by the Principal above, inclusion of pupils from diverse groupings other than those with SEN was possibly the norm in the school. The desire to include children with SEN more effectively was indicated by all teacher participants (8/8) suggesting that all of the participant teachers were positive towards inclusion from the outset of the PD initiative as they wanted to develop their inclusive practice. The focus on inclusion of pupils with SEN in particular was also evident in the piloting of team teaching in the school during the time of this research. This is a collaborative practice lauded for its potential to enhance inclusion of pupils with diverse learning needs (Friend, et al., 2010) and

promoted in Irish education policy (DES 2005, 2011, 2017a). Therefore, it could be contended that inclusion of pupils with SEN more so than other pupils from groups at risk of marginalisation, was a priority need within the school. However, the sole focus on inclusion of pupils with SEN is potentially prohibitive to the development of inclusion in the broad sense (Mac Ruairc, 2016).

Challenging Deterministic Views of Ability

There was evidence of professional learning relating to the attitudes and beliefs of the class teacher participants (7/8) in relation to ability. This change relating to the ability appeared to be influenced by the positive impact of differentiation through choice on pupil outcomes, echoing the research that identifies improvement in pupil learning as a powerful influence on changes in teacher beliefs (Guskey, 2002a; Opfer & Pedder, 2011b). For example, Niamh commented that as a result of implementing differentiation by choice, the pupils were "more motivated and the work after using these strategies is of a better quality" (Niamh, Interview). Some of the participants (4/8) expressed surprise regarding what certain children could achieve when they determined their own level of engagement in their learning, mirroring research findings evincing teachers' surprise at pupil engagement when opportunities for learning were made available to all children (Florian & Linklater, 2010). For example, Kieran reflected:

It surprised me how productive they were when they were given that free choice and they were proud of their work...I found their strengths by letting them pick how they wanted to do things and it showed me their strengths and it showed me how to work with them" (Kieran, Interview).

Through the provision of choice, the pupils in Kieran's class whom he had previously regarded as "the weaker kids" displayed their learning in ways which surprised him and this challenged his thinking about ability. Furthermore, Kieran used mixed ability groupings in the lessons I observed in his classroom (Observation Schedule, 10/2/16,

18/5/16) evincing the rejection of ability grouping as a main organisation of working groups aligning with the IPAA (Florian, 2014). There was an evident shift in thinking relating to pupil ability within the PLC. Niamh reflected that she had previously decided on pupil ability in her head and how she realised that she was putting limits on the children as a result: "sometimes you think well x's strength is this because you decide in your own head and maybe that is wrong" (Niamh, Interview). Having engaged in the PLC and developed differentiation through choice in her classroom Niamh exhibited change in her attitudes and beliefs relating to pupil achievement:

I kind of just think to a certain extent that anything is possible now... I do think if you plan the lesson correctly and use the right methods and everything that everyone can achieve something in the class (Niamh, Interview)

This reflects the inclusive pedagogical approach assumption of believing that all children can make progress. During the PLC 2 (RRJ, PLC 2: 10/2/2016) meeting, there was a critical discussion about ability labelling. Emily reflected on how differentiation through choice had impacted her thinking about ability labelling. She was more aware of the negative impact of determining the level of each child and putting limits on what they can do, as opposed to giving them choice and allowing the child to determine their level of engagement (RR, PLC2: 10/2/2016). Similarly, Rebecca engaged in this critical dialogue and added that differentiation by choice helped her to develop inclusive practice as she could differentiate for all without marking any one child as different. Rebecca elaborated on this point in the interview when she referred to the significant impact that teacher expectations can have on pupil learning (Cosgrove et al., 2014):

It is hard you know when you're differentiating you're like oh this activity would be too hard for a child or too easy for a child so it's your expectations deciding what they can achieve from the lesson. If you're giving them the choice you have different options as how they are going to express themselves in the lesson. It's really letting each child achieve.

Because it's differentiation by choice it's including every child, every child has a chance to achieve to the best of their abilities but they're not being pigeon holed as someone who is different I suppose, so everyone's just working together (Rebecca, Interview).

Differentiation by choice worked for Rebecca as it provided opportunities for the pupils to display their learning in their preferred modes of learning in the classroom. Rebecca displayed an inclusive pedagogical approach by not placing limits on her pupils' learning by deciding who was able for various learning activities at the outset. Furthermore, no child was isolated as needing 'something different' as each pupil could choose how to demonstrate his or her learning. Rebecca noted that from the class's perspective no one stood out as different; "Because all the children are included it's harder to pick out who's struggling. It's not as obvious because they're included" (Rebecca, Interview). While no child was marked as different in Rebecca's class demonstrating the IPAA, this quote portrays the potential of homogenising difference (Lawson et al., 2013). The treatment of difficulties in learning as equal could potentially result in inadequate support for some children (Norwich, 1996). However, based on my observation this did not seem to be a cause for concern. I observed two lessons in Rebecca's classroom in which she used differentiation through choice (Observation Schedule: 10/2/16, 15/6/2016). On both occasions, she used teaching approaches that considered the needs of all learners. Rebecca used mixed-ability groupings in her lessons showing evidence of the inclusive pedagogical approach assumption relating to rejection of the notion that the presence of some will hold back progress of others (Florian, 2014). While the IPAA supported most of the participant teachers (7/8) in rejecting deterministic beliefs about ability there was one participant who did not evidence a shift in thinking regarding ability labelling. Anne discussed how she endeavoured to use mixed ability pairs for peer tutoring during maths lessons but how it was difficult to teach maths to a diverse group:

I know it needs to be inclusive but you can't teach maths to high achievers and low achievers at the same time because there's ones that just don't get it and they need to get small group attention. I think it needs to be with all the three teachers of the three classes and have a weaker class, a middle class and a high level class at least once or twice a week even (Anne Interview).

Anne was the participant who missed most time from the PLC sessions. She was also involved in working with a class other than her own in an extra-curricular context which she mentioned as a reason for her missing two of the PLC sessions and leaving one early. It is possible that she did not demonstrate the same tendency to reject deterministic beliefs about ability as her colleagues, due to less engagement in critical dialogue in the PLC which explored the strengths and concerns relating to inclusive practice and problem solving challenges that presented in the classroom.

Beliefs about Differentiation

The participants (9/10) showed evidence of a change in teacher beliefs and attitudes towards differentiation. Diane's engagement in the PLC resulted in her critically reflecting on how inclusive her practice was and it challenged her thinking in this regard:

The inclusive aspect of it was really highlighted for me this year especially for the boy in my class with Down Syndrome and he's been doing a lot of work one on one with the SNA and he was definitely learning a lot but I'm not sure how inclusive it is and I was finding it really difficult to include him as part of the class in a way that was meaningful and that was benefitting his learning as well, I found it really hard. I think it just distinguished for me between differentiation and inclusive differentiation (Diane, Interview).

She questioned how inclusive it was for a pupil to be working one to one with the SNA, reflecting the tension between integration and inclusion. While the pupil in question

was physically present in the classroom, Diane found it difficult to meaningfully include the pupil in the learning environment. She became aware of how differentiation through choice could facilitate inclusion in her class. While Diane mentioned that she "would have always considered differentiating for different needs" (Diane, Interview), she felt that the PLC emphasised the importance of inclusion in her teaching. Emily also displayed a change in her thinking about inclusion and differentiation particularly in relation to a child with SEN in her class:

I think I looked at inclusion and differentiation differently. Like I was saying for that boy in particular, my idea of differentiation was doing an easier version or less questions or a worksheet of his own and that really makes him different from everyone else (Emily, Interview.)

Differentiation by task and by outcome are the two most frequently used differentiation strategies in Irish schools (Rose et al., 2015) however engagement in the PLC resulted in Emily questioning the 'traditional' methods of differentiation that marked pupils as different for example by allocating 'easier' tasks for certain pupils. In using differentiation by choice in the classroom, all learners were offered the same options. Emily believed that this was a more inclusive approach as no one child was marked as different, thus demonstrating an inclusive pedagogical approach (Florian, 2014). The participants (10/10) displayed positive attitudes towards the use of differentiation through choice in developing inclusive practice. This extended to the Deputy Principal and the Principal although they did not use differentiation through choice in teaching: "From looking in with the SEN hat on differentiation and inclusiveness is usually about the SEN child but what it apparent here is that it's for every child" (Deputy Principal, PLC 6, 15/6/2016). The principal commented on how differentiation through choice was a more favourable approach than other methods of differentiation and was a move away from the deficit model of disability:

I would come from the perspective where someone would diagnose a need and prescribe the solution so we'd almost be like medical practitioners prescribing the differentiation that might be needed. I think including the element of choice meant that children were taking ownership of differentiation (Principal, Interview).

These findings demonstrate that the IPAA can support teachers to critically evaluate their practice in relation to meeting the needs of all. It can be contended that when given the space to engage in collaboration through a PLC, the participants were afforded the opportunity to engage in critical dialogue (Parker et al., 2016) about how to differentiate their teaching in a more inclusive way, than more overt methods of differentiation by task and by outcome, which have been identified as dominant modes of differentiation in Irish schools (Rose et al., 2015).

Multiple Modes of Learning

Differentiation through choice provides learners with choices regarding how they express their learning and in terms of the level at which they engage with the lessons (Florian, 2014), similar to the UDL concept of providing pupils with multiple means of expression (Rose & Meyer, 2002). During the first PLC meeting (RRJ, PLC 1, 13/1/2016) a differentiation booklet (Appendix U) was presented and discussed which included reference to providing learners with choice in how they demonstrate their learning. The teachers used various activities that were suggested in the differentiation teacher resource booklet in their teaching (choice boards:6/8; choice centres:3/8; learning menus: 2/8). The class teacher participants (7/8) critically reflected on how the pupils in their classes benefitted from choosing how they wanted to demonstrate their learning. Niall made his practice public in the PLC (RRJ, PLC 5, 5/2016) regarding how he provided for multiple means of expressing learning in the classroom. Later he remarked that the PLC had influenced his thinking in this regard:

Through this group I found more ways of appealing to different styles of learning...so I think the kids benefitted from that as well because those who didn't like writing or reading as much had other ways to show me that they did know what they were talking about and had learned something, so I think that way it helped as well (Niall, Interview).

Niamh's engagement in the PLC had impacted her attitudes towards multiple means of expression and as a result she was cognisant of meeting diverse learning needs through using a variety of approaches:

They [the pupils] are all going to learn in different ways and that's one thing I have realised as well, they're not all going to learn the same way and that's something we have to remember too (Niamh, Interview).

Similarly, Hilary commented on how the implementation of differentiation through choice had resulted in her learning more about how her pupils learn:

You actually start to identify more types of learning that they're gravitating towards like who might learn more from doing art and they're more visual. You pick up so much more than I would have before [using differentiation though choice] (Hilary, Interview).

In the lessons that I observed in Hilary's classroom (Observation Schedule: 14/3/16, 18/5/16) the pupils were offered engagement in choice centres and subsequently a choice board. On both occasions a variety of options was presented to accommodate multiple means of expression, evidencing an inclusive pedagogical approach (Florian, 2014). This approach was observed in all of the observed lessons (8/8). The findings suggest that the IPAA supported participant teachers (7/8) in developing their approach to supporting multiple modes of learning.

Shifts in Conceptions of Inclusion

The participants displayed new learning relating to supporting children with SEN in a way that rejects ability labelling and does not mark any one child as different from his or her peers. Furthermore, there was a shift in thinking from inclusion of pupils with

SEN towards inclusion being concerned with all pupils. The teachers (7/8) showed evidence of the first assumption of the IPAA as they moved towards the inclusive pedagogical approach of extending what is ordinarily available to 'some' or 'most' learners to all learners in the classroom (Florian, 2014):

I'm rearranging my room in preparation for next year and I'm going to have a lot more early finisher things. There's one or two that will be in my class they get rewards when they do something, little bit of work then a reward, whereas the rest of the kids don't and I want to bring that in a bit more of a subtle way so they they're all the same. Rather than getting those two kids to conform to the way everyone else is doing it, why not be nice to all the rest of the kids and have more frequent rewards (Kieran, Interview).

Kieran was moving from planning for 'some' children to including 'all' learners by extending what was ordinarily available for a few pupils – the reward system - to all pupils in the classroom. His focus on inclusion was moving away from the focus on pupils with SEN to including all learners in the classroom. Hilary also evidenced this shift in thinking from some to all:

Everyone said when we came in like we had one child in mind and that was like who in your class needs to be included. I think that's the thing with teaching in general, we look at the weakest children who need help but everybody needs help and even if you're the smartest child in the class you still need to reach your potential. So it definitely opens up that area that everyone is included and inclusiveness isn't about making sure x person is included it's the whole, it's for everybody. You're including everybody and not always focussing on that one child and looking at them to make sure they're involved but that everyone is involved and engaged in meaningful work (Hilary, Interview).

Hilary had moved from perceiving inclusion as pertaining to pupils with SEN to a broader conception of inclusion as relevant to all pupils in the class. In addition, there was an acknowledgement that meaningful inclusion involved engaging pupils in appropriate learning experiences that avoided marginalisation of any one pupil. This shift in Hilary's conception of inclusion was also evident across the group. Niamh

reflected on how the development of her inclusive practice enabled her to effectively include pupils she had concerns about without marking any child as different. At the same time, she successfully enabled these pupils to achieve high standards in their learning:

I can see the two children that I originally came for just in seeing how well they've worked just in the last few months by using differentiation by choice, the different strategies that you'd recommended and that they're completing their work at a really high level now it does make you realise that it [inclusion] is possible (Niamh, Interview).

The positive impact of differentiation through choice on the pupils in Niamh's class contributed to her realisation that meaningful inclusion was achievable resulting in a positive stance towards inclusive practice. The enthusiasm relating to developing inclusive practice emanated from positive outcomes for pupils in the participants' classes (7/8) reflecting the influence of systemic factors on teacher learning (King, 2014, 2016). This finding is important as the literature purports that positive teacher attitudes towards inclusion are paramount to developing inclusive practice (Avramidis & Norwich, 2002; de Boer et al., 2011; Drudy & Kinsella, 2009; Florian, 2014; Forlin et al., 2014). The Deputy Principal also showed evidence of conceptualising inclusion as involving all pupils rather than focusing on including those with SEN:

I even saw in Hilary's room, all the children were part of it, wasn't just a case of you weren't just looking at the weakest three or four. I think those practices would be really good to bring forward (Deputy Principal, Interview).

Even though the Deputy Principal did not attend every PLC session or implement differentiation through choice with a class or group of pupils he showed evidence of a deep understanding of extending what is ordinarily available to all leaners as espoused in the IPAA (Florian, 2014). The shift from perceiving inclusive practice as pertaining

to pupils with SEN, to acknowledging the value of inclusive practice for all learners, enabled the participants to move away from the hegemonic deficit view of SEN. These findings demonstrate that the PLC focus on developing inclusive practice enabled the participants (9/10) to deeply reflect on how inclusion can be meaningfully achieved for all pupils in the learning environment.

Teacher Efficacy for Inclusive Practice

When questioned in relation to their experience of initial teacher education, the class teacher participants (8/8/) unanimously responded that it did not adequately prepare them for inclusive practice in the classroom. Niamh commented: "If I'm honest no, I don't think my training did prepare me and when I did teaching practice I didn't have much experience of working with children with learning difficulties" (Niamh, Interview). Diane also remarked:

There was a certain amount included in the courses but I wouldn't say it was an adequate amount for the amount that I have faced, just in the last four years, I've had to learn a lot on the job and a lot from other teachers in the school, they've been the biggest resource that I've used. I suppose the main things you learn in college would be about seating arrangements to suit people and differentiated worksheets and that sort of thing but actually including children with SEN in class I think I picked most help up from other staff members when I started teaching (Diane, Interview).

This finding is consistent with previous research in the Irish context which revealed that the majority of teachers surveyed (n=244) reported low efficacy relating to creating inclusive classrooms and did not believe that their pre-service teacher education had prepared them adequately for meeting the needs of pupils with SEN (O' Donnell, 2012). The PLC model provided opportunities for collaboration on problems of practice in contrast to the participants' experiences of transmissive models of education such as their lectures in ITE:

...the lecturers in college weren't as hands on so they were giving you great ideas but it was in a lecture setting, you didn't get to discuss it with

anybody. So looking back I don't think I was as prepared as I could've been or am now but I would be more confident now with inclusive practice (Niall, Interview)

Niall felt that he benefitted from engaging in critical dialogue with his colleagues which positively impacted his confidence in developing inclusive practice. Overall, the participants reported improved efficacy for inclusive practice resulting from engaging in a PLC that was underpinned by the IPAA framework. Evidence of this can be seen relating to three constructs: affirmation (O'Sullivan & Deglau, 2006; Parker, Patton & Sinclair, 2015); successful outcomes, and public sharing of work (Parker et al., 2016).

Affirmation

The class teacher participants (5/8) reported improved efficacy for inclusive practice as a result of affirmation from their colleagues in the PLC. Diane demonstrated evidence of this in her comments about implementing inclusive practice:

I definitely would feel more confident in trying to get everybody included. When you try out an idea and it doesn't go as well you think it can be a bit of a confidence knock until you go and meet everyone else in the group and then it's really reassuring to talk about how it went for them (Diane, Interview).

Diane also referred to the reassurance she gained from collaborating with her peers, which was particularly valuable to her when something did not work well in the classroom: In addition, engaging in lesson study with her colleague Hilary increased her confidence:

Even when we did the lesson study, going into Hilary's room and seeing that her class can be quite difficult as well sometimes and she can have similar problems and different problems so that can boost your confidence as well because sometimes you feel like you're failing and when you see everyone else having problems as well you feel a bit more it's okay you're on top of things and everyone isn't doing a perfect job all of the time (Diane, Interview).

The collaborative aspect of the PD initiative enabled Diane to realise that she was not alone in the problems she experienced in her practice. Hilary was experiencing difficulties that were both similar and different and this assuaged Diane's doubts in relation to her own practice. As a result, Diane felt more confident in her capability to implement inclusive practice. The public sharing of work can result in affirmation and improved self-confidence (Parker et al., 2016) and this was evidenced among the group:

Just by chatting about what you're doing, it definitely affirms you and gives you confidence in what you're doing and motivates you to keep doing it, especially when you're working with partner teachers (Hilary, Interview).

Hilary further explained how her practice had been "affirmed" as prior to the PLC she had implemented inclusive practice in the classroom to an extent through offering choice to pupils during Aistear. However, she had some doubts regarding her own efficacy for inclusive practice as she thought that offering choice to pupils "was a good idea but I wasn't really sure at the time". Likewise, Diane's engagement with the PLC provided her with affirmation of practice as she too had offered choice in Aistear but the PLC "validated that a little bit more for me" (Diane, Interview).

Successful outcomes

The class teacher participants (5/8) displayed increased efficacy for inclusive practice arising from successful outcomes in their classes which encouraged sustainability of new practices (King, 2014). In responding to whether the PLC had impacted on her confidence in her capability to develop inclusive practice Niamh reflected:

Definitely, especially the two children which I originally came here for at first. They're prouder of their work because to them they're choosing what's easiest or more interesting to them and they're completing that first and by the time they get to something that they think might be difficult

they're on that roll and suddenly they're doing it without even being aware (Niamh, Interview).

Niamh mentioned that the new practice – differentiation by choice – had positively impacted her class, especially for the two children that she was initially concerned about including. She had gained new knowledge about inclusive practice in terms of offering choice in her classroom and she subsequently put this knowledge into practice. This aligns with the literature that purports teacher change as a cyclical rather than linear process (Opfer & Pedder, 2011b; Rouse, 2008). As Rouse (2008) proffers, the changes in beliefs came after two of the elements were in place, knowledge and doing. Niamh's knowledge of how to develop inclusive practice was enhanced through the PLC and she used this knowledge to implement differentiation through choice. Niamh's belief in her ability to implement inclusive practice was impacted after she witnessed improvement in the pupils' achievement. Therefore, her efficacy for inclusive practice was developed in a positive way.

A change in beliefs regarding capability to develop inclusive practice was also demonstrated by other class teacher participants (7/8). When questioned regarding the impact of the PLC on confidence regarding his learning for inclusive practice, Kieran stated: "Yeah, I think it has. It's given me the tools, it's given me the chance to relax into realising that you know what, being inclusive doesn't have to be hard work!" (Kieran, Interview). He displayed confidence in his capability to include all learners in the classroom. This was also evidenced in a lesson I observed (Observation Schedule, 18/5/2016) in which Kieran tried a new approach to teaching sight words by grouping children in mixed ability pairings and offering choice for how pupils engaged in their learning. Furthermore, Kieran shared with the PLC (RRJ, PLC 5, 18/5/2016) that he had used choice in teaching maths by allowing the pupils to choose which concrete

materials would help them in their learning. This demonstrates the development of Kieran's confidence in his capacity to developing inclusive practice across the curriculum. As indicated earlier, Kieran believed in inclusion and wanted to develop it in his classroom as well as in the school. Like Niamh, he used the new knowledge about differentiation through choice in his teaching thus as proffered by Rouse (2008), when the knowledge and belief was present the doing followed. When the 'doing' resulted in successful outcomes Kieran's efficacy was enhanced.

One of the participants did not show significant evidence of improved efficacy for inclusive practice. Anne found that the PLC "gave me more ideas but it does make you feel like you're not doing enough or constantly trying to think what else can you do but that's good I suppose you can't just be doing the same thing" (Anne, Interview). It is interesting to note that she was the only participant to mention that collaborating with her colleagues and sharing practice made her feel that she was not "doing enough". She also mentioned that this was due in part to "time and pressure because you're trying to do everything else and look after these kids in the class. I suppose if you'd one child but if you've eight of them" (Anne, Interview). Anne was referring to the inclusion of pupils with learning difficulties. In comparison to her counterparts, Anne did not have a greater number of pupils with SEN in her class than anyone else in the PLC, however she found the diversity of pupil learning needs challenging:

There were a few that stood out with difficulties and there was one in particular who was hard to include in class because he was so disruptive so I had him in mind but also trying to include all the others with their different levels and abilities (Anne, Interview).

The challenge of differentiating planning and teaching to meet the diversity of learner needs and lack of time, are both common barriers to inclusion which are often reported in the literature (Travers et al., 2010). These challenges continued to impact negatively

on Anne's efficacy for inclusive practice despite her engagement with the PLC. This was possibly due in part to the less amount of time she had spent involved in the PLC, in addition to the challenges in covering a broad curriculum with a diverse group of learners. It is possible that Anne's efficacy was lower than that of the other participants and that she may have required more support in developing her inclusive practice for example through peer coaching. Anne's motivation for participation stemmed from an interest in including all learners more effectively. However, it is possible that Anne may not have believed in inclusion to the same extent as her peers in the PLC and needed more time and support in implementing differentiation through choice which could foster changes in her beliefs.

Public Sharing of Work

For Diane, the PLC had provided a supportive space where she could share with and learn from her peers: "the ideas I got from others in the group have helped during the year" (Diane, Interview). Similarly, Hilary noted how sharing ideas with her colleagues had developed her confidence: "Yeah you're speaking to other colleagues and you're picking up ideas off them and people are saying "that's a great idea I'll take that" (Hilary, Interview). Rebecca displayed confidence in how she would develop differentiation through choice in the future: "I have so many more ideas to go on next year that I'll be bringing them in from the start and make a real go of it from the beginning of the year" (Rebecca, Interview). These findings demonstrate again the value that teachers place on classroom practice (Fullan & Miles, 1992; Morgan et al., 2010). The collaboration through sharing ideas and practice from the classroom helped the class teachers develop efficacy for inclusive practice and this was evident in the teachers' (7/8) reflective dialogue in the final PLC session: "I've used so much of that [ideas for differentiation through choice] this year and I know I will going forward as

well. It's nice to be introduced to new ideas and new ways of thinking as well" (Niamh, PLC 6). Furthermore, public sharing of work made the implementation of new practices "seem a lot more doable" for the participants (PRL 2, 10/2/16). These findings suggest that the collaborative nature of the PLC had positively impacted participants in relation to their efficacy for inclusive practice. Therefore, public sharing of work (Parker et al., 2016) had a positive impact on the class teacher participants' (6/8) efficacy for inclusive practice. A further example of this is evident in Niall's reflection on peer observation:

I observed Kieran and he's in senior infants and I'm in first class. He did a lesson on the Alphabox about ants and they did a KWL chart around the story and the children had to write words to do with ants in the Alphabox and I was amazed that senior infants could do it....and that gave me the confidence to go off and try it with first class with different texts and upgrade it for first class. That gives you the confidence to try it or to try new ideas or a different approach (Niall, Interview).

Observing the lesson in a colleague's classroom gave Niall the confidence to take risks in his own teaching. Furthermore, observation of the success of the new practice impacted on Niall's efficacy for inclusive practice. Niall believed in developing inclusive practice but lacked confidence in implementation or the 'doing' (Rouse, 2008). However, his engagement in the public sharing of work in the PLC and in particular in observing a colleague, increased his confidence to engage in new practices to support inclusion, reflecting the reciprocal nature of changes in beliefs, knowledge and practices (Opfer & Pedder, 2011b; Rouse, 2008). Niall acquired new knowledge about differentiation by choice and put this knowledge into practice when he was supported by the PLC.

The research findings relating to participants' efficacy for inclusive practice correlate with the research which shows that mainstream teachers in particular, often

refer to their lack of confidence and competence in meeting the needs of pupil with SEN, and this concern is not exclusive to any one stage of the teaching career (de Boer et al., 2011; Rose et al., 2015; Travers et al., 2010). This has been attributed to the dearth of adequate professional development across the teaching continuum (O' Donnell, 2012; O' Gorman & Drudy, 2010; Rose et al., 2015; Shevlin et al., 2008; Shevlin et al., 2013; Travers et al., 2010). However, not all types of PD are appropriate to develop inclusive practice, as referenced by the participants. What is evident from the research findings above is that arguably the sustained collaborative professional development in this context provided a safe and supportive space that positively impacted teacher efficacy for inclusive practice. The isolated nature of teaching can be compounded when there is no opportunity to collaborate with colleagues (Hargreaves & Fullan, 1992). When opportunities to share and reflect on practice are absent, insidious self-doubts can arise. The PLC provided opportunities for collaborative reflective inquiry, a key characteristic of effective collaborative PD (Kennedy, 2014). This included critical dialogue and the public sharing of work (Parker et al., 2016) which allowed the participants to support each other in improving their inclusive practice.

The analysis of the SACIE-R and TEIP scales revealed some changes between variables in pre-and post-study scales that related to efficacy. One variable showed changes that were closest to 0.05 which was on the TEIP scale. The variable "I am able to calm a disruptive student" showed a change of 0.083. Although this change is not statistically significant, it demonstrates evidence of a small improvement in efficacy for inclusive practice.

The findings relating to the impact of the PLC on teacher efficacy for inclusive practice can be summarised as the following:

- Critical dialogue and collaborative problem-solving diminished teacher isolation
 and subsequently affirmed participants' practice and improved their selfconfidence which corroborates the literature regarding the benefits of
 collaborative social learning (Ainscow & Sandhill, 2010; Cochran-Smith &
 Lytle 1999, 2009; Stoll et al., 2006) and research which demonstrates that this
 type of learning affirms teachers' practice (Parker et al., 2016).
- Public sharing of work improved participants' confidence in their capabilities to implement inclusive practice. This supports the literature regarding teacher affirmation (O'Sullivan & Degalau, 2006; Parker, Patton & Sinclair, 2015)
- The positive impact of new practice on pupil outcomes enhanced the participants' efficacy for developing inclusive practice which echoes research highlighting the success of PD initiatives in relation to pupil learning as a systemic factor that impacts teacher professional learning and the implementation and sustainability of new practices (King, 2014, 2016).

Degree and Quality of Change in Teachers' Practice

The impact of the PLC on teachers' practice was explored using King's (2014) framework (Appendix D). This required an examination of impact at various levels, including participants' individual practice and collaborative practice.

Participants' Individual Practice

There were different levels of implementation across the participant group. The level of use of the new practice (Figure 4.1) was evaluated according to the PD Evaluation Framework (Appendix D).

Figure 4.1 Levels of Use of New Practice (King, 2014)

	Level of Use	Behaviours
Users	Discontinued	I did try using a particular practice but have since discontinued it.
	Critical	I am using the practice in collaboration with other teachers and we have made some changes to it to meet the needs of our pupils in our context. We are also using the underlying principles and procedures in other teaching areas.
	Accepted	I have established a way to use the practice and it works for me in my classroom. I understand the underlying principles and I will continue to use it regardless of continued support from others.
	Technical	I am using the new practice and am following the guidelines as suggested for its use.
Nonusers	Preparation	I have decided to use the practice and am currently preparing and planning for using it.
	Orientation	I am looking at the practice and exploring the possibilities for its use. I have not committed to using it.
	Nonuse	I have not begun to explore the use of the new practice to date.

All of the class teacher participants (8/8) implemented differentiation by choice in their classrooms to a certain extent. Kieran spoke about a key moment of learning for him in relation to his engagement in the PLC which had an impact on his practice. During a lesson which I observed (Observation Schedule, 10/2/2016) he offered the pupils five options in responding to their favourite part of a story that had been read by the class teacher. The pupils could choose to re-create their favourite part of the story through drawing, writing, use of plasticine, use of a dictaphone, or through role-play. One pupil who had a diagnosis of a SEN particularly surprised Kieran in his display of learning:

It was then I realised that he was listening the whole time, he gets the story, the characters and all that kind of stuff because he made that scene (from plasticine) and he was able to explain everything for me whereas if I had asked him to draw a picture he would have scribbled something and I would have thought well I don't know what that is and he wouldn't have been as excited about it (Kieran, Interview).

As an observer, I could also clearly see evidence of the pupil's learning in his description of his favourite scene from the story that he created using plasticine. In offering the pupil choice, Kieran had not placed limits on what the pupil could achieve which resulted in the pupil reaching his potential by choosing how to demonstrate his learning. Kieran elaborated on the impact of offering choice to this pupil:

What has happened then since then is that we realised that it's his confidence that is killing him so we [Kieran and the Resource Teacher] tried to find ways that will get him motivated about his work and that was through choice (Kieran, Interview).

The pupil surprised Kieran because he was struggling with reading and writing which were the usual modes used in responding to a story. However, when offered choice the pupil chose a mode of expression that he was comfortable with and it motivated him to engage with responding to the story in a meaningful way. Kieran described how this one experience informed his teaching and that using a new approach with that particular pupil resulted in positive learning outcomes:

He is now writing in his copy, which at the start of the year I never thought he would. He's figured out with dictation that if he looks at the person that's speaking he can get it and we've just seen his confidence soar. I put that down to pretty much that one day and seeing him actually able to express himself and talk about it and be excited about his work (Kieran, Interview).

Kieran further reflected that as a result of his engagement with the PLC he "found it helped me to relax more into my teaching" and he was more inclined to allow the pupils to "have more control" over their learning. He considered the pupils' opinions in relation to their learning in a more significant way. He expressed surprise at how "productive" the pupils were when "given the free choice" (Kieran, Interview). During the observation of lessons in Kieran's classroom (Observation Schedule, 10/2/2016, 18/5/2016) he displayed an inclusive pedagogical approach through offering choice to

pupils, using mixed-ability groupings, use of formative assessment and social-constructivist approaches. Kieran's engagement in the PLC resulted in new knowledge of inclusive pedagogy, development of his skills to implement inclusive practice and a change in attitudes and beliefs towards deterministic views of ability which evidence deep learning of inclusive pedagogy (King, 2014; Timperley, 2008) and thus he was operating at the critical level of degree and quality of change related to the new practice (King, 2014). This critical level of use was also evidenced in Emily's reflection on how the PLC had impacted on her inclusive practice:

Yeah for sure, it [the PLC] definitely did. Like say the reluctant learner, the reluctant writer, if they're given choice they're instantly more included so that definitely improved inclusion in my class. Like even though the PLC group is over I'm still using it, I'm still giving them a choice and it might just be a slight variation but they don't care, they just want to be able to make the decision themselves (Emily, Interview).

This quote reflects Emily's use of teacher agency (King, 2014) to determine how she used the practice to suit the needs of the learners in her own context. At the time of the interview, which took place in late June, Emily was continuing to implement differentiation by choice in her classroom despite the formal PLC meetings having concluded earlier in the month indicating sustained implementation of new practice (King, 2014). She valued the impact of differentiation by choice on pupil learning and as a result was still employing this approach post intervention evincing that the positive impact on pupil outcomes contributed to the sustainability of new practice (King, 2014, 2016). Furthermore, this finding resonates with theories of teacher change which identify a reciprocal relationship between change processes (Opfer & Pedder, 2011b; Rouse, 2008). Emily changed her practice which resulted in changes in student learning that consequently impacted her beliefs about inclusion. Emily discussed the impact of differentiation through choice on one particular pupil whom she had concerns about:

He is a reluctant learner and he ended up getting a STen of ten compared to a STen of four in the Drumcondra last year and I'm not saying it's because of choice, he obviously had a bad year last year and particularly good year this year. But I know from speaking with his teacher from last year he was very reluctant, sometimes he could be quite lazy but definitely, by giving him the choice he really flourished and he came up with some really creative stuff and it was really just amazing (Emily, Interview).

The implementation of this new practice had motivated this pupil to engage in the classroom as he could choose how he wanted to display his learning and thus creating a more inclusive learning environment for that pupil. While this was self-reported in the interview, Emily had previously shared her experience regarding this pupil in the PLC and shared evidence of pupil learning with the group. Emily had used a choice board (Appendix V) with her class and mentioned how the class in general were more motivated as they could choose a preferred mode of learning. The pupil she discussed had composed a rap based on the class novel while another pupil composed a piece of music to accompany the rap which was performed for the class. Emily shared the pupil's rap with the group (RR, PLC 4, 27/4/2016) along with other pupils' work samples and this provided a stimulus for discussing how choice allowed pupils to have control over their own learning and afforded the pupil agency in his or her learning. Through implementing differentiation by choice Emily realised that: "it includes the kind of children you didn't even think needed including in the first place and that's the beauty of it really" (Emily, Interview). This influenced Emily's approach to differentiating her planning and teaching to meet the diverse learning needs in her classroom: "I think it just made me look at that and how I could include more people by giving them that choice or giving everybody the same choice" (Emily, Interview). Offering choice to her pupils provided opportunities for pupils to have autonomy over their learning which Emily came to view as a positive aspect owing to improved pupil

motivation. This aligns with the literature on student voice which identifies the role of schools as models of democracy and the positive impact of student voice on developing inclusive schools (Ainscow, 2016; DuFur & Korinek, 2010; Fielding, 2015; Flynn, 2014; Messiou et al., 2016; Shevlin & Rose, 2008). Emily previously explained her prior knowledge of differentiation as the pupil "doing an easier version or less questions or a worksheet of his own" which reflects the most common approach taken to differentiation (Rose et al., 2015). However, assigning tasks deemed 'easier' can result in pupils with SEN following a limited curriculum which may impact their achievement (Tomlinson, 1999) and marks pupils as different from their peers (Florian, 2014). Emily's approach to differentiation had been broadened as a result of her engagement in the PLC:

It made me look at more interesting ways of getting the curriculum across like what we were doing with the choice could have worked for SESE, it did work for English as well and it's more interesting and varied and it keeps them more interested (Emily, Interview).

The PLC had positively impacted her practice in that she was extending her use of differentiation to offer choice to her pupils which resulted in a more inclusive learning environment in which choice had fostered pupil motivation for engaging in learning. Emily demonstrated deep learning relating to inclusive pedagogy and was at the critical level of degree and quality of change in terms of professional learning for inclusive practice (King, 2014). Like Emily, Niamh self-reported on the practice that she implemented in the classroom, but she also provided evidence of pupil learning in the PLC (RR, PLC 4, 27/4/2016). A learning menu template was included in the differentiation by choice booklet (Appendix W) and Niamh had taken the initiative to use this template in offering choice to her pupils. She created a learning menu that provided her pupils with options for displaying their learning relating to a class novel

based on the story of the Titanic (Appendix X). Niamh shared this menu along with some samples of the pupils' work with the PLC in Session Four. The participants were very interested in how she had used it in her class and in Niamh's description of its positive impact on pupil learning. Niamh reported that differentiation by choice had helped to create a more inclusive classroom:

Just in the last month the difference in the classroom environment and in the way they're working and what I've learned as well is really to give them a choice for everything. Just even by giving them choice in what order they want to complete their homework and there aren't as many moans or sighs. They're delighted that they have ownership over their work and control (Niamh, Interview).

The concept of giving pupils ownership and control over their learning was mentioned by most participants (7/8) which aligns with Florian's (2014) inclusive pedagogical approach and the literature on student voice (DuFur & Korinek, 2010; Fielding, 2015; Flynn, 2014; Shevlin & Rose, 2008). The development of an inclusive pedagogical approach was also evidenced during the observation of teacher practice in the classroom. In a lesson observed in Diane's classroom (Observation Schedule, 10/2/2016) she employed the Aistear Framework and allowed the pupils to choose which learning centre they wished to engage in. In offering the pupils choice Diane was developing her inclusive practice and this practice was complemented by adopting the Aistear principles, in particular the principle of children as citizens who have a right to their opinions that are worth listening to (NCCA, 2009). Later in the year Diane brought differentiation by choice to arguably a critical level (King, 2014) in her junior infant class by offering the pupils choice in creating a mini-beast in response to a story read in a whole class setting and development of work around mini-beasts (Observation, 18/5/2016). The pupils had a choice of using plasticine, writing or drawing. Diane offered support materials and encouraged the children to "show me

everything you know about your mini-beast" and circulated to offer support and to discuss pupils' work. Employing differentiation by choice gave Diane a new approach in developing her inclusive practice:

The ideas I've got for differentiation by choice for the whole class has been really good and just as a teacher as well it gives you an opportunity to let go of the reins and give the children a bit of ownership which is great for infants as well I love when they're able to take charge and pick what they're doing and actually engage in it. Just the ideas I got from others in the group have helped during the year (Diane, Interview).

Again, this finding reflects the positive impact of pupil ownership on pupil engagement in learning. I also observed two lessons taught by Hilary (Observation Schedule, 14/3/2016; 18/5/2016) which were similar to Diane, as they were both teaching infants and had a collaborative working relationship which fed into developing inclusive practice. The presence of an established collaborative relationship well positioned Diane and Hilary to extend their collaboration to enact inclusive pedagogy. The first lesson involved offering choice within Aistear while the second lesson involved the children responding to a story through various options. Hilary valued differentiation by choice as "the kids are more involved and more independent" and like Kieran she viewed it as a "more relaxed style" of teaching (Hilary, Interview).

Overall, the positive impact on pupil engagement in learning encouraged the participants to develop their inclusive practice even further (Table 4.3), evincing the influence of pupil outcomes on the sustainability of new practice in addition to the corroboration of a cyclical and reciprocal theories of teacher change (Opfer & Pedder, 2011b; Rouse, 2008)

Table 4.3 Participants' Levels of Use (King, 2014)

Participant	Level of Use	Behaviours	Evidence
Kieran	Critical	Use of new practice in collaboration with a colleague. Engagement in lesson study to develop new practice. Adaption of and experimentation with new practices to meet needs of pupils. Use in areas other than literacy: maths and choice in homework. Clear understanding and acceptance of inclusive pedagogy.	Feedback on implementation of new practice in PLC 2, PLC, 4, PLC 5, PLC 6; Shared planning for new practice in PLC 3 Observation Schedule: 10/2/16; 18/5/2016, Interview)
Diane	Critical	Use of new practice in collaboration with colleague. Engagement in lesson study to develop new practice. Some adaption of with new practices to meet needs of pupils. Clear understanding and acceptance of inclusive pedagogy	Feedback on implementation of new practice in in PLC 2, PLC 5, PLC 6; Shared planning for new practice in PLC 3, PLC 4; Observation Schedule: 10/2/16; 18/5/2016, Interview)
Hilary	Critical	Use of new practice in collaboration with colleague. Engagement in lesson study to develop new practice. Adaption of new practices to meet needs of pupils. Clear understanding and acceptance of inclusive pedagogy	Feedback on implementation of new practice in PLC 2, PLC 6; Shared planning for new practice in PLC 3; Observation Schedule: 14/3/16; 18/5/2016, Interview)
Rebecca	Critical	Use of new practice in collaboration with colleague. Engagement in lesson study to develop new practice. Adaption of and experimentation with new practices to meet	Feedback on implementation of new practice in PLC 2, PLC 6; Shared planning for new practice in PLC 3, PLC 4; Observation

		needs of pupils. Use in other areas: art and choice in homework. Clear understanding and acceptance of inclusive pedagogy	Schedule: 10/2/16; 15/6/2016, Interview
Niall	Critical	Use of new practice in collaboration with colleague. Engagement in peer observation. Creative adaption of new practices to meet needs of pupils. Clear understanding and acceptance of inclusive pedagogy	Feedback on implementation of new practice in PLC 2, PLC 4, PLC 5; Shared planning for new practice in PLC 3, PLC 4; Peer observation with Kieran and shared feedback with the group on this in PLC 4, Interview
Anne	Technical	Reported use of new practice. Use of choice boards in English lessons towards end of PLC	Interview, Shared planning for new practice in PLC 3; Shared discussion about new practice PLC 2, PLC 6
Emily	Critical	Use of new practice in collaboration with colleague. Adaption of new practices to meet needs of pupils. Sharing of pupil outcomes with PLC. Clear understanding and acceptance of inclusive pedagogy	Shared feedback on implementation of new practice in PLC 3, PLC4, PLC 5; Shared planning for new practice in PLC 3, PLC 4
Niamh	Critical	Use of new practice in collaboration with colleague. Engaged support teachers in peer observation. Adaption of and experimentation with new practices to meet needs of pupils. Sharing of resources and pupil outcomes with PLC. Clear understanding and	Shared planning for new practice in PLC 3, Shared feedback on implementation of new practice, sharing of resources used for new practice and sharing of pupil outcomes in PLC 4

		acceptance of inclusive pedagogy	
Deputy Principal	Critical (In terms of understanding rather than use)	Strong support for use of new practice among staff and collaboration in developing new practice, particularly in team teaching. Clear understanding and acceptance of inclusive pedagogy	Shared discussion PLC 3, PLC 6 Interview
Principal	Critical (In terms of understanding rather than use)	Strong support for use of new practice among staff and collaboration in developing new practice. Clear understanding and acceptance of inclusive pedagogy	Shared discussion PLC 3, PLC 6 Interview

Most of the teacher participants (7/8) showed evidence of deep learning relating to inclusive pedagogy (King, 2014). It is unclear as to why Anne was the only participant who did not evidence deep learning relating to inclusive pedagogy. In the interview she referenced use of activities from the differentiation booklet towards the end of the PLC hence demonstrating her level of use of new practice at a technical level. Anne did not display the same level of commitment as her peers who fully engaged with the PLC despite the 'busyness' of school life. It is unclear why she was less engaged than her peers. She mentioned outside commitments as impinging on her attendance at PLC meetings. However, even when present at the PLC meetings, she was the least engaged participant. As indicated earlier, possibly her belief in inclusion and inclusive practice was not as strong as the other participants. Therefore, arguably Anne may not have two of the three factors identified by Rouse (2008) as necessary to result in change – knowing, believing or doing - or perhaps she was not at the same level of readiness for change as her peers (Fullan, 1991).

Collaborative Practice

The PLC provided a supportive environment where the participants engaged in sharing of practice and collaborative inquiry regarding problems of practice. The collaboration extended beyond the PLC meetings to other contexts as observed by the Deputy Principal:

Every teacher involved collaborated and even from being on yard duty with different teachers it would come up in conversation about how is the differentiation going, what they were doing and trying to get things done before the next time you arrived. So there was a lot of collaboration going on (Deputy Principal, Interview).

In addition to informal professional conversations that occurred outside of the PLC meetings, teacher participants developed inclusive practice in their engagement in shared planning, peer observation and team teaching.

Lesson study. The PD model of lesson study was mentioned in the literature review as an approach involving two or more teachers planning a lesson together with one colleague observing the other colleague teach the lesson. The teachers then engage in post-lesson analysis to develop improvements for subsequent planned lessons (Takahashi & Yashida, 2004). During PLC Two (10/2/2016) the idea of lesson study was introduced to the group and proffered as a valuable approach to develop inclusive practice (Ainscow, 2016). The participants were not familiar with this approach but expressed interest in trying this method of collaboration. The participants who attempted to engage in lesson study included Kieran and Claire, and Diane and Hilary. Variations of lesson study were used such as Niall's observation of Kieran's lesson, Niamh involving the support teachers to critique her lesson in a team teaching context, and collaboration on planning a lesson between Anne and Emily. Anne reflected on the potential benefits of collaborative planning:

Myself and Emily talked through the planning of a lesson, we didn't get to teach it though but it is good to plan the lessons together and myself and Niamh were talking about what we were doing as well but then Hilary and myself are teaching together next year and I think we will use it a lot more because we've been through it and we know what to do and it's probably more likely that we'd to sit down and plan things together because we know all about it (Anne, Interview).

Anne cited time and cover for classes as a barrier to engaging in lesson study and while this proved challenging for the participants that did fully engage in the process they found a way to make it work displaying teacher agency for sustaining new practices (King, 2014, 2016). Diane cited cover for classes as a challenge to lesson study but was positive about the benefits of collaborative planning and observing of practice:

I definitely liked planning lessons together anyway, just to get another person's point of view and Hilary as well would have a lot more literacy knowledge than I would so it's great to see her taking the lessons. It's a different way of looking at things I suppose you can get stuck in a rut otherwise (Diane, Interview).

Rebecca planned a lesson with Kieran however, she did not get to observe it due to time constraints. As a result, Niall observed the lesson as he could secure cover for his class from the learning support teacher who he was team teaching with at the time. Despite the challenges Rebecca viewed lesson study as beneficial to teaching:

I really like the idea of planning with other teachers because it's not just you that can have good ideas you can get some really good ideas from other teachers and everyone has their fortes as well. It improves your teaching if you're observing other teachers and planning with them (Rebecca, Interview).

These findings echo the strengths of deprivatising practice (Fullan, 2007) and making practice public (Shulman, 2005; Parker et al., 2016) in terms of teacher professional learning. Shared inquiry into the quality of teaching and learning in teachers' classrooms is essential for teacher professional learning (Fullan, 2007)

and this approach was valued by the participants as such. However, deprivatising practice so that teachers can observe each other teach and discuss the quality of their work is not a common practice and something that may be feared by teachers, particularly if it is perceived to constitute an accountability agenda (Fullan, 2007). This did not seem to be a concern for the participants who had attempted lesson study (4/8) as they were positive towards this approach overall. Furthermore, those who had not engaged in lesson study expressed an interest in it for the following academic year (PLC 6, 15/6/2016). In the final PLC, the Deputy Principal suggested that lesson study "could be brought in with team teaching" in the following year and added "we're hoping to have more collaboration time next year for team teaching" (PLC 6, 15/6/2016). This finding portrays how the support of leadership could sustain the development of inclusive practice over time and the potential diffusion of the work of the PLC to other teachers in the next academic year (King 2014, 2016).

Team teaching. The school in question was just beginning to develop team teaching during this academic year. In this pilot phase the school had structured the team teaching so that each teacher would have in-class support for a set number of weeks in the year. At the time of the PLC Niall and Niamh were the only two participants who had in-class support while other participants' team teaching block of time had finished. While Kieran did not have in-class support during this time, he reflected on how beneficial he thought team teaching could be in developing inclusive practice:

I think it's going to have a bigger impact next year than it will have had this year. We had team teaching early on in the year and it was before we got stuck into the choice thing and by the time we got stuck into the choice our team teaching slots were over. Whereas hopefully next year it will be

timetabled better but I know exactly what I want to do next year (Kieran, Interview).

This finding indicates the enthusiasm for diffusion of inclusive practice through team teaching which is important for sustainability and in terms of planning and evaluating the impact of the PD (King, 2014, 2016). Furthermore, the above quote reflects Kieran's confidence in his capability to develop inclusive practice. Niamh described how team teaching helped her in implementing new practice to develop inclusion:

So for three days a week for forty-five minutes there were two learning support teachers in the classroom working with me and I went through what way we were going to work it and using differentiation by choice so they were on board for it and they had great things to say about it. They were the two teachers who gave me feedback on one of my lessons as well. So I was very fortunate that I had team teaching and those two extra teachers in the room. I had the best of both worlds to give it a really good run. If I do it again and I know I will, I know it can work now (Niamh, Interview).

Niamh showed commitment to developing an inclusive pedagogical approach and in sustaining new practice in the future. It was evident that Niamh was operating at a critical level of use and understanding in relation to new practices (King, 2014). In planning the particular lesson mentioned above, Niamh had asked the support teachers to offer constructive feedback after the lesson in order to identify areas of improvement. Niamh proffered that this was an adaption of the lesson study approach that we had discussed in the PLC. She provided the support teachers with the lesson plan which contained a section to write feedback (Appendix X). Niamh shared her lesson plan and the written feedback from the support teachers in the PLC (RRJ, PLC 4, 27/4/2016). The support teachers wrote some positive comments on her lesson plan regarding choice and children engaging in learning at their own level. Niamh mentioned how she wanted to further develop choice according to her pupils' interests in the future and I

encouraged her in this action. The PLC had clearly impacted Niamh's practice in a positive way. She was enthusiastic about the implementation of this new practice and this enthusiasm was palpable as Niamh was so willing to publicly share her work in the PLC. In addition, Niamh's comments convey how the PLC had diffused to other members of the teaching staff who were not participants. The support teachers were engaged in implementing differentiation by choice during team teaching and according to Niamh and the written feedback that she shared, these teachers were positive about the new practice. Niall also discussed the potential diffusion of new practices to other teachers:

I think through the team teaching it spread because I know two of the learning support staff were in Niamh's class and they were also coming down to my class and they could see we were trying similar things and they might say "oh Niamh tried it this way and it might work better that way" so it is kind of filtering through (Niall, Interview).

Again this portrays the diffusion of the PD initiative to other teachers (King, 2014) but it also demonstrates how the collaboration occurred not only in one context but across classrooms. The support teachers were recommending approaches to Niall based on their experience of what was effective in Niamh's classroom. Unfortunately, there were no learning support/resource teachers participating in the PLC and this was something Niall mentioned as a challenge for him in terms of collaboratively planning for developing inclusive practice during team teaching. As the support teachers were not involved in the PLC they did not have the same level of conceptual knowledge regarding inclusive practice that the participant teachers had developed through the PLC. The participants (Kieran, Emily, Diane, Hilary, Anne) who did not have team teaching during this time expressed their disappointment:

I didn't [have team teaching] and it was a pity because it would have given it a focus. We did mention it to the Deputy Principal that for team teaching

next year it would be great and to meet the learning support teachers and organise something like this (Emily, Interview).

Irrespective of involvement in team teaching, the participants believed that it was a valuable approach in developing inclusive practice. The PLC had a positive impact on team teaching for the teachers involved during the intervention with potential for inclusive practice to be developed through team teaching in the following academic year. In addition to diffusion of practice through team teaching, it was evidenced in the reported informal conversations among the research participants in contexts outside of the PLC. As previously mentioned, Niall, Kieran, Emily, and Niamh commented on how the work of the PLC came up in conversation in the staffroom. Anne also mentioned other teachers' interest in the PLC: "other teachers would be asking us what we were doing or what were the meetings about" (Anne, Interview). Diane also commented "when you're at the table at lunchtime you can't really help but go oh we're doing this today" (Diane, Interview). There was also evidence of potential diffusion during a staff meeting that encompassed a "Teachmeet' which is an informal meeting where participants spend 2-7 minutes presenting on an aspect of education (Teachmeet Ireland, 2017).

Teachmeet. Further diffusion of new practices (King, 2014) occurred during a staff meeting where a 'Teachmeet' was organised by the Principal to facilitate teachers sharing interesting strategies or ideas for teaching. The Principal had attended a conference where a Teachmeet had taken place and brought the idea to his own staff. Kieran, acting as a 'change-agent' (King, 2014) in terms of promoting and supporting the work of the PLC, suggested to the principal that he could share information on differentiation through choice with his colleagues. Kieran acknowledged that while a

Teachmeet is useful for presenting ideas for teaching and learning it was not an effective way of extending differentiation by choice to the wider school:

I held up the book [differentiation resource booklet] and said this is amazing and a good few people were interested in it. No one got back to be about it but that's the nature of school, we had 15/20 ideas thrown at you whereas differentiation by choice sounds like hard work even though it actually isn't. Like that's why the PLC worked so well because there was that little bit, that little step every month, you weren't expected to do everything" (Kieran, Interview).

Kieran's comments support the literature that identifies PLCs as holding promise for transforming teacher learning (Kennedy, 2014; Stoll et al., 2006) owing to the sustained nature of the learning process. Teacher collaboration was evidenced in participants' employment of lesson study, differentiation by choice in team teaching contexts, collaborative planning, and shared practice in the PLC as well as the 'Teachmeet' and informal conversations in other contexts. In considering the differing types and quality of collaboration enacted by the class teacher participants, it is useful to use the levels of collaboration identified in O'Sullivan's (2011) PLC (Figure 2.5) as a reference. The participants all collaborated to a certain extent but as indicated by the table below, they were collaborating at different levels.

Table 4.4 Participants' levels of collaboration according to the conceptual model for learning collaborative practice (O'Sullivan, 2011, p. 121).

	Levels of Collaboration	Participants	Evidence
1.	Sharing planning	All class teacher participants 8/8	PLC 2, 3, 4, 5; Interviews
2.	Sharing resources	5/8	PLC 2 - Niamh, Lesson Study: Kieran, Rebecca, Diane, Hilary
3.	Sharing teaching	7/8	PLC 2, 3, 4, 5, 6. Interviews, Lesson study: Kieran, Claire, Diane, Hilary.
4.	Sharing observation	5/8	Lesson study: Kieran, Rebecca, Diane, Hilary. Peer observation: Niall and Kieran.
5.	Sharing evidence of children's learning	2/8	PLC 4: Niamh, Emily
6.	Sharing feedback on practice	5/8	PLC 4: Niamh's engagement in team teaching feedback
7.	Sharing improvements	3/8	PLC 4; Niamh, Emily; PLC 2: Kieran

In summary, the following research findings regarding individual and collaborative practice emerged from the data:

- Differentiation by choice was used by all class teacher participants in their classrooms to some extent
- Class teacher participants valued the implementation of inclusive practice owing to positive pupil outcomes which aided the sustainability of new practices (King, 2014)

- Class teacher participants (7/8) showed evidence of operating at critical use of understanding relating to new practices (King, 2014).
- Teacher collaboration occurred at different levels within the PLC (O'Sullivan, 2011).
- Teacher collaboration resulted in some diffusion of new practices in team teaching and through informal conversations in contexts outside of the PLC as well as sharing of ideas through a whole-staff 'Teachmeet'.

It can therefore be concluded that the PLC positively influenced the participants' individual and collaborative practice for inclusion in the research site over a sustained period which supports the view of PLCs as transformative models of professional development (Kennedy, 2014; Stoll et al., 2006; Vescio et al., 2008).

Factors that Supported Teacher Professional Learning

The data analysis revealed a number of contributory factors to teacher learning for inclusive practice. These factors mirrored King's (2014, 2016) systemic factors for supporting teacher professional learning.

Structure and Design of PD

The structure and design of the PLC was a significant contributory factor to teacher change in this study. The participants valued the collaborative nature of the initiative, in addition to it being in their own context and sustained over a period over time. All of the class teacher participants (8/8) commented on how the sustained nature of the PLC kept the initiative alive for them over the six-month period. For example, in the interview Kieran enthused about the "momentum" of the initiative. He explained that:

There are so many initiatives and things that you are supposed to do in schools that it's just overload whereas this was nice, piecemeal, in chunks.

You'd [the researcher] come in once and month and be like you tried this great, does anybody want to try this? (Kieran, Interview)

Kieran valued that consistency of returning to the PLC group each month but it is important to note that he mentioned how it wasn't "overload" (Kieran, Interview). In order to ensure that the initiative was guided by the participants, they were not required to take on extra work or practices, they were offered options and suggestions regarding developing inclusive practice in a manner that engendered a culture of support and mutual respect which is key to creating effective PLCs (Harris & Jones, 2010; Stoll et al., 2006). In addition to the sustained nature of the PD, the participants were positive regarding the PLC being on-site and job-embedded as it provided the opportunity to discuss the work outside of the PLC at other times:

Well it was good that like it's people that you're working with so even if you're not in that room on that particular day you can be discussing it at other times and seeing how other people are getting on and what they're trying and what you might try out. Whereas if you go off to do a course you never really go back to it, you don't revisit what you've learned so you just kind of forget about it when it's a continuous thing you keep moving forward (Anne, Interview).

Anne was positive about the PLC as a model of PD but as indicated she was less engaged in the PLC than her peers. She had only engaged in the first level of collaboration – shared planning - with her colleagues (Table 4.4), possibly indicating a lack of one of the factors (belief, knowledge, practice) deemed important to bring about teacher change (Rouse, 2008). Diane expressed similar sentiments when reflecting on the PLC, in particular regarding the opportunity to collaborate with her colleagues:

Having the group meeting every month means you are actually reminded of it consistently and you kind of keep on top of it a bit more. As well there are other people in the school who are doing it at the same time so you feel

like you can work together a bit more with people rather than trying things out on your own (Diane, Interview).

These findings support the research on effective models of PD which advocates the potential of collaborative professional development to impact teacher change (Fraser et al., 2007; Harris & Jones, 2010; Kennedy, 2014; Parker et al., 2016). In addition, the findings support the literature that advocates on-site PD where teachers inquire into their own practice in their own context and engage in collaborative reflection and inquiry (Cochran-Smith & Lytle, 2009; Hammerness et al., 2005; Korthagen, 2001; Fullan, 1999; O'Gorman & Drudy, 2010). In this case, it enabled the participants to engage in critical dialogue not only in the PLC in their own context but through informal conversations at different times in the school day. Kieran and Rebecca referred to sharing practice during the school day: "If I do something in my classroom that I think will benefit someone I will go in and tell Rebecca this is good or I have this do you want to try it? It's been really nice that way" (Kieran, Interview). Similarly, Rebecca referred to her collaboration with Kieran: "we could just wander into each other and say oh this worked well, try that or that didn't work so well if I was using it again I would do this" (Rebecca, Interview). The value of collaborative dialogue was also evidenced in the participant reflective logs (PRL 2 - 5) (Appendix G). The PD initiative provided a context for the teachers to share practice in a meaningful way that was instantly relevant to their own classrooms aligning with the literature about what is most important to teachers (Morgan et al., 2010).

Safe and Supportive Environment

The participants (4/8) also mentioned that the culture of the PLC was important for them. Kieran felt that a supportive atmosphere had been cultivated in the PLC: "I felt that everybody had a chance to express themselves in the PLC, nobody was left out, there was no 'stupid' idea as such, there was no 'stupid' question. I really, really enjoyed it' (Kieran, Interview). Hilary, Niamh and Rebecca also commented on the atmosphere created in the PLC. Niamh opined: "I really enjoyed it, it was very informal to a certain extent. Everybody spoke about their experiences, nobody overpowered the session and you guided it very well" (Niamh, Interview). The role of the researcher as facilitator of the PLC evidently had an impact on the success of the PD initiative. As the facilitator, I endeavoured to incorporate and develop the key characteristics of successful PLCs as identified in the literature (Harris & Jones, 2010; Parker et al., 2016; Stoll et al., 2006). Creating a supportive and inclusive environment is one of the key characteristics that was carefully enacted and proved to impact the group in a positive way. Hilary commented regarding the initiative design and approach to the PLC:

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

This finding supports the importance of creating safe and supportive environments in which teachers can meaningfully inquire into their practice (Parker et al., 2016). It is argued that schools cannot develop in isolation and that when schools seek external support it indicates a sense of dynamism (Fullan, 1993). The participants found the external support as beneficial and necessary to the development of the PLC. Kieran remarked:

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

Similarly, Emily commented: "having you come in was brilliant because it was a focus and it was oh this is Aoife's day, Aoife's coming in so that was brilliant, it focussed it" (Emily, interview). The notion of accountability resonated with the participants overall as they felt it gave the initiative momentum that might otherwise have been lost. While Hilary felt that a PLC could be facilitated internally in the school she mentioned that the external support does provide another layer to the PLC: "The idea of having someone external does add that extra dimension that makes it a bit more official...you up your game a bit more naturally" (Hilary, Interview). External support is recommended in developing collaborative inquiry (O'Sullivan, 2011) however it is unlikely that external facilitation of PLCs could be provided to every school in an on-going basis considering the implications for resources and finance. Therefore, school leadership and capacity building is important in order to ensure sustainability of PLCs. This has implications for the provision of PD to schools and support for school leadership. Arguably, there is potential for this to be developed through university-school partnerships as suggested previously by O'Sullivan (2011).

Practical Examples and Resources

Another contributing factor to the success of the PLC design was the provision of a resource booklet created by the researcher. This booklet contained sample activities that could be used for offering choice to pupils such as choice boards, choice centres, a learning menu, considering multiple modes of learning and ideas for using flexible grouping (Appendix U). It also included some information about different types of differentiation. A copy of this booklet was given to each participant in the first PLC and

participants were encouraged to engage with some of these activities in their classrooms and in collaboration with other teachers for inclusive practice. The class teacher participants (5/8) commented on how valuable the booklet was in supporting them to develop inclusive practice and suggested activities from the booklet were used in Kieran and Rebecca's lessons which I observed (Observation Schedule: 10/2/2018). Niamh also reflected on how useful she found the booklet:

You can get stuck in a rut doing the same thing year in year out. So that's definitely what I found great about these sessions, the pack you gave us. I've used so much of that this year and I know I will going forward as well so it's nice to be introduced to new ideas and new ways of thinking as well (Niamh, PLC 6).

The PLC group also suggested uploading the differentiation resource booklet to the shared server so that all teachers could access the materials. These findings support the assertion that teachers engage in PD in order to attain practical ideas which are directly relevant to their classrooms (Fullan & Miles, 1992). Furthermore, these findings reflect the importance of providing resources that support teacher change (Fullan, 1991) and suggest that teachers benefit from a scaffolded approach in developing new practice. It could be deduced that the teachers were looking for 'quick tips' initially as they were significantly enthused by the differentiation booklet (PRJ, PLC1, 13/1/2016).

However, the deeper understanding of inclusive pedagogy was developed through critical dialogue (Parker et al., 2016) in the PLC. This suggests that PD needs to strike a balance between the practical ideas that can be easily implemented and the deeper conceptual knowledge relating to pedagogy.

All of the participants expressed satisfaction with the manner in which the PLC took place and the supportive environment cultivated in the PLC, which provided a space for shared reflection and inquiry among participants. In summary, the following

components of the initiative design were central to the teachers' development of inclusive practice:

- The creation of a supportive and collegial atmosphere (Parker et al., 2016)
- The sustained nature of the initiative (Kennedy, 2104; Stoll et al., 2006)
- The scaffolding of new practice through suggested practical ideas relevant to day-to-day practice in the classroom (Fullan & Miles, 1992)

These findings are consistent with the literature which emphasises the importance of PD designed to meet teachers' needs and which considers the complexity of teacher change (Bubb & Early, 2008; King: 2014, 2016; Guskey, 2002a).

Successful Pupil Outcomes

The impact of the PLC on pupil outcomes was perhaps the main contributor to teacher change in this study aligning with studies which indicate that teachers are most likely to sustain practices when they identify an impact on pupil learning (Guskey, 2002a; King, 2014). The participants (7/8) reported a positive impact relating to three types of pupil learning:

- 1. affective (attitudes and dispositions) outcomes
- 2. psychomotor (skills and behaviours) outcomes
- 3. cognitive (performance and attainment) outcomes (King, 2014)

The participants (7/8) reported that the implementation of differentiation by choice resulted in increased pupil motivation and improved engagement in learning. Emily noted:

There was definitely a time when I was really surprised when the kids would say do you mind if I did an extra one, so they'd only have to pick one [an activity] from each group and they wanted to do an extra one, they wanted to stretch themselves and that was absolutely brilliant. The stuff they were coming up with was so creative (Emily, Interview).

Emily's development of an inclusive approach was evident as she was displaying a belief that all children can make progress (Florian, 2014). Hilary also reported increased motivation among her pupils when she introduced differentiation by choice and in addition the pupils were "really engaged" in their learning which evidenced the value of taking an inclusive pedagogical approach as espoused by Florian (2014). Similarly, Rebecca reported that the pupils in her class were "a lot more independent now because of choice they are really making their own decisions and going for it" (Rebecca, Interview). She felt that differentiation by choice had given pupils ownership of their work and it fostered trust between the teacher and the pupils. This allowed her to give pupils more responsibility for their learning demonstrating an interdependence between the teacher and learners to create new knowledge (Florian, 2014) in Rebecca's classroom. Niall and Kieran also noted improved confidence among their pupils as a result of offering choice. This finding is reflected in Niall's comments:

I feel they're more confident to give things a go. If I say we're going to do a book review before a couple of heads would go down like "oh I'm no good at these" but if I give a book review in different styles, they could be reading into a dictaphone or making an ad about a book and they get to choose which one they want they're more confident to say well I will succeed at one of these and they get a go at each one if they want if we do it a couple of times a week or in a month they can see oh I am good at this in a certain way so it's helped with their confidence (Niall, Interview).

Niall mentioned how his engagement in the PLC had made him more conscious of providing for different means of expressing learning in his classroom. The pupils who perhaps traditionally struggled with certain writing tasks could display their learning in alternative ways and as a result these pupils came to realise their strengths and they had improved confidence. This indicates that Niall was interested in the welfare of the 'whole child' and not just the acquisition of knowledge and skills as advocated by the IPAA (Florian, 2014). Diane stated that the implementation of differentiation by choice

enabled meaningful inclusion for a pupil she was initially concerned about at the beginning of the study:

It worked really well with the boy with Down Syndrome, because he's non-verbal we could print out pictures of all the stations so he could choose that way and yeah it was great for him because if he's not at a station that he enjoys he gets frustrated and it's very difficult to get him back on track so it suited him definitely (Diane, Interview).

Diane found it challenging to meaningfully include this pupil in her classroom and took the initiative to use pictures to enable him to work in an inclusive environment. Instead of differentiating for this one pupil, Diane used the pictures with all pupils reflecting an inclusive pedagogical approach in action (Florian, 2014). Niamh believed that her implementation of differentiation by choice resulted in meaningful inclusion of her pupils. She mentioned that pupils were choosing work that interested them and was at their level of readiness which resulted in the pupils producing improved work products: "I think the quality of work is better" (Niamh, Interview). These findings suggest that the impact of the PLC on pupil outcomes was predominantly positive in relation to meaningful inclusion in the classroom, pupils taking ownership over their work, independent learning, increased pupil motivation, and improved quality of work. While there is limited research on the impact of PLCs on pupil outcomes, Rosenholtz (1989) and Louis and Marks (1998) found that students performed better in schools with effective PLCs. This was attributed to class teachers engaging in critical dialogue about 'authentic pedagogy' which aligns with the findings of this study.

The outcomes referred to were predominantly affective and psychomotor although was some reference to cognitive (performance and attainment) outcomes regarding the quality of pupil work (Guskey, 2002b; King, 2014). However, despite the increased accountability pressures on quantitative measurement of pupil attainment, the

participants (7/8) were enthusiastic about the affective and psychomotor outcomes displayed by the pupils. This aligns with the contention that pupil achievement cannot be exclusively measured through quantitative methods (Rhodes et al., 2004).

Support from Leadership

The support from school leadership was central to the success of the PLC. The principal did not canvass or request any member of staff to become involved in the PLC. Participation in the PLC was optional to any member of the teaching staff in the research site. This was an important consideration in developing the PLC as the research points to mandatory PD experiences having potential to foster teacher negativity towards PD (Hargreaves, 2007; Opfer & Pedder, 2011b). The principal and deputy principal participated in three PLC sessions and were supportive to the other participants in their efforts to develop inclusive practice in these sessions as well as in informal conversations as the PLC developed. Furthermore, the principal facilitated the diffusion of new practices to other members of staff by providing time for collaboration and resources (King, 2011, 2014, 2016). In an informal conversation after the first PLC the principal remarked to me: "Even the fact the teachers are thinking about being more inclusive is great" (RRR, 13/1/2016). The principal showed enthusiasm for collaborative professional development and dialogue which bolstered the development of the PLC: "I am very committed to the idea of teachers learning from each other. I think much of our most worthwhile learning comes from the dialogue we have with other teachers" (Principal, Interview). This kind of support from the principal is paramount to the success of PLCs as is emphasised in the literature time and again (Day et al., 2009; Harris & Jones, 2010; O'Sullivan, 2011; Stoll et al., 2006). In addition, the principal demonstrated a commitment to inclusion which is paramount to the development of inclusive schools (Mac Ruairc, 2016). The participants themselves

acknowledged the support of the principal as important to the success of the initiative.

Hilary reflected on this support in the interview:

I suppose it wouldn't have happened if the principal hadn't given it the go ahead and he'd always check it with us and say that's great and what did you do with Aoife today? And just that he's on board with it like it wouldn't be feasible if he didn't have someone to cover when I went in to Diane or when she came in to me. You need someone to give you the all clear and the time for it to happen (Hilary, Interview).

This finding was indicative of the group as a whole. Each class teacher participant (8/8) identified the support of the principal as significant in developing the PLC. While the participants valued the support of the principal, they did not feel that he interfered or mandated in any way.

His enthusiasm enthused all of us as well and he kind of let us at it a little bit without always poking his nose in. He was very open to just trying and if we had said it wasn't working he would've accepted that. (Niall, Interview)

Niall's comment indicates that the principal did not micromanage the process despite increased structures of accountability impacting on school leadership (King, 2011; Mac Ruairc, 2014), signalling that the principal trusted the teachers to engage in the PLC thus engendering autonomy and teacher agency. It is interesting to note that Niall felt it was important that the PLC was supported by the principal but that his presence in each PLC might have had a negative effect: "If he had of been in [the PLC] all the time you might have been afraid to say some things so I think it was handled quite well from that end as well" (Niall, Interview). Similarly, Kieran believed that the PLC benefitted more from not having the principal there all the time:

Everyone spoke freely in the PLC, there was never a "oh I'm not going to say that because the principal is there", particularly temporary teachers. I think it was probably better that they weren't involved, things were lighter, it wasn't heavy, it was something we were doing that we were genuinely

interested in but you had the freedom to speak your mind (Kieran, Interview).

The literature advocates that school leaders should create the structures and conditions for PLCs to work (Bolam et al., 2005; Stoll et al., 2006). This was certainly the case in the research site as the school leaders were supportive and positive towards the PLC. The support of the principal in general was a motivating factor for the participants. Niamh alluded to this when discussing the importance of support from leadership for the PLC: "Absolutely, it does come from the top down and you do need the support". The participants all agreed that the interest and support of the principal was something they valued. This correlates with the literature that identifies the central role of the school leader in providing structural and cultural supports as crucial to the success of PLCs (Day, 2007; Harris & Jones, 2010; King, 2011, 2014, 2016; O'Sullivan, 2011; Stoll et al., 2006). The support of school leadership fostered teacher agency for inclusive practice. The participants were supported in taking autonomy over how they enacted inclusive practice. Diane chose to engage in lesson study with her colleague Hilary and when asked if she needed to get permission for getting another teacher to cover her class while she observed in Hilary's classroom she responded: "I don't think I did get permission to be honest! I've a support teacher that comes in for half an hour every day so I just talked to him about it and there's flexibility there" (Diane, Interview). The support from school leadership enabled Diane to take autonomy to problem solve the enactment of lesson study. This was demonstrated in the Principal's own reflection on teacher collaboration that arose from the PLC:

...there were the informal chats where I heard we need to do this about... let's talk about x...That happened quite frequently and then on occasion there were times where I knew that there was something very specific being organized because it had to be coordinated among two or more classes so I was aware of that going on. I didn't have to lead it or get

involved in it because I knew the people knew what they needed to do to get to where they wanted to be (Principal, Interview).

The principal created a culture of trust that enabled the teachers to be active agents in developing inclusive practice. The flexibility of the principal in allowing Croke Park time to be used was an important success factor in this research. The principal acknowledged that the participants missed out on some "key messages" that had to be delivered through email or small group discussions at other times. However, he was extremely positive towards using this time for collaborative development. The principal commented: "That is what I would see CP hours as being for rather than housekeeping chores. Some form of development work and this was a perfect illustration of how they may be used in that format" (Principal, Interview). This comment indicates the value the principal placed on teachers inquiring into their own practice.

It has been noted that school leaders in the Irish context may not be affected by neoliberal accountability agendas unlike their counterparts elsewhere (Mac Ruairc, 2014). In this study this seemed to be the case for the principal, as he showed autonomy and agency in his leadership for developing inclusive practice in this study. The research findings reveal a distributed leadership style in which the principal trusted the teacher participants to take leadership in engaging in the PLC to develop inclusive practice. This leadership style resonates with the literature which advocates shared leadership and the development of a culture of trust between school leaders and teachers (Stoll et al., 2006). The principal displayed a commitment to inclusion, support for teacher collaboration and trust in colleagues in the development of the PLC. Therefore, the principal demonstrated a transformational style of leadership that contributed to capacity building for change at the research site (King, 2016) and key characteristics of leadership for inclusive schools (Mac Ruairc, 2016).

Teacher Agency

In addition to the fostering of teacher agency by school leadership, the PLC supported the participants to take autonomy over how they enacted inclusive practice. The participants showed evidence of deep learning in relation to inclusive practice which allowed them to implement it in a way that suited the needs of the pupils (King, 2014). This was observed in a lesson (Observation Schedule, 15/6/2016) where Rebecca took a novel approach to teaching sight words. The teacher gave the pupils responsibility for choosing three sight words they did not know from the wall display which had words arranged in three levels according to difficulty. She then assigned the pupils to mixed ability pairs. The teacher asked the pupils how they could teach each other the unknown words and she recorded their ideas on the whiteboard, for example one pupil calling out the words while the other wrote them on a whiteboard, playing word bingo, using a flashcard approach. The pupils then were allowed to choose any of the suggested activities to teach each other the unknown words. The lesson worked very well and the pupils demonstrated independent and peer learning.

I had previously observed Kieran teach this lesson which he had developed himself and then shared with Rebecca. Rebecca then made some minor amendments to the lesson in her own context. Kieran had allowed his pupils to choose their partners, while Rebecca had assigned partners as she wanted to ensure that each pair had one pupil who was more proficient in reading the sight words for peer tutoring purposes. The approaches taken by Kieran and Rebecca demonstrate deep learning of inclusive pedagogy. They acted as change agents in addressing the problems of practice in their own contexts by creating new and different approaches to teaching sight words that involved choice and collaborative learning. In all of the lessons that were observed, the class teacher participants (4/8) displayed openness and willingness (King, 2014) to

trying new practices and this was also observed in participants (7/8) during the PLC sessions (RRJ, PLC 5, 18/5/16). Furthermore, the participants were willing to take risks in their practice and felt supported in doing so. On reflecting on how the PLC supported her to develop inclusive practice Rebecca remarked:

We got great ideas and tried things out and I really like that, trying things out and if they don't work well you gave it your best and if they do it's lovely to see and you can share that with other teachers. So I thought it was really good from the point of view and we got to discuss and say what we thought and it wasn't really restricted or anything so I really liked that (Rebecca, Interview).

This finding is indicative of the how the class teacher participants (7/8) felt supported in taking ownership over their practice and in taking risks in implementing new practices.

This was reflected in Niamh's comments as well:

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

This finding resonate with findings of a study of how the Inclusive Practice Project impacted student-teachers' practice in the classroom (Florian & Linklater, 2010). The findings indicated that the newly qualified teachers took risks in their own practice as they applied the inclusive pedagogic principles to planning and teaching in a way that includes all learners, echoing the way in which participants in this study took risks as they applied an inclusive pedagogical approach in their classrooms. Furthermore, the participants demonstrated aspects of teacher agency for inclusion (Pantic & Florian, 2015). They (7/8) evinced a commitment to inclusive practice and competence in enacting inclusive pedagogy, including working in collaboration with others. In addition, there was some evidence among the participants (7/8) of autonomy and reflexivity in evaluating their own practice and the system within that practice is

reflection of developing pupil independence and trust: "I think it's [choice] made them a lot more independent, instead of me doing everything they have more responsibility and if you give them that bit of trust they run with it" (Rebecca, Interview). Rebecca showed a commitment to building effective professional relations with her pupils as well as her colleagues (Pantic & Florian, 2015). The characteristics of effective PLCs (Bolam et al., 2005; Stoll et al., 2006) and signature pedagogies for teacher learning (Parker et al., 2016) that were considered in developing the PLC in this research helped to create the conditions that supported teacher agency. These findings evidence the positive impact of the PLC on teacher agency which in turn contributed to teacher change for inclusive practice. In addition, the findings support the literature that advocates the importance of teacher agency in developing teacher professional learning (Kennedy, 2014; King 2014, 2016; O'Sullivan, 2011) and in developing teachers as "agents of change" in developing inclusion grounded in social justice (Pantic & Florian, 2015, p. 333).

The systemic factors that supported teacher change at the research site mirror those identified in previous studies (King, 2014, 2016). However, in addition to the support structures identified for planning and evaluating PD, the research findings here indicate that support in the form of external expertise was significantly valuable to the participants and to the success of the initiative. While a change-agent/advocate is identified as a key element in sustaining PD, the findings here suggest that in order to develop inclusive practice external support may also be necessary at the outset.

Furthermore, the conception of 'initiative design' as a systemic factor in King's (2014) study related to a structured reading initiative implemented in the classroom, which differs to the development of inclusive practice as a pedagogical approach intended to

permeate day to day practice. However, the factor was understood to relate to the design of the model of PD and its impact on teacher professional learning. Therefore, the design of the PLC was a key systemic factor in helping teachers to engage with the sustainability of new practices in this study (King, 2014).

Factors that Hindered Teacher Change

Time: "Busyness of school life"

Teachers need opportunities to meet and talk on a regular basis if non-superficial learning is to occur and therefore time must be organised in the school in order to facilitate teacher professional learning (O'Sullivan, 2011; Stoll et al., 2006). However, time for collaboration is a perennial challenge for schools and poses a barrier to teacher learning (O'Sullivan, 2011). In addition, lack of time to meet the individual needs of pupils has shown to be a barrier to inclusion in Irish schools (Travers, et al., 2010). The fact that the PLC was within school hours was certainly a motivating factor for teacher participation as observed by Kieran: "If it was as well as Croke Park hours, people wouldn't have done it" (Kieran, Interview). The class teacher participants (8/8) all agreed that the allocation of time from within their working hours was a positive influence on teacher participation. Niamh reflected: "I think having done it and if I had to give feedback to the staff I would encourage people to go [to the PLC] but that was a nice incentive [i.e. Croke Park Hours] to start off". Similarly, Rebecca commented that Croke Park time was crucial to the success of the PLC: "I'm not sure it [the PLC] would have [happened] because people have so many conflicting schedules and with everything after school I think it was helpful that it was part of staff meetings and was given a real time". While schools struggle to find time for collaboration there is little support offered in addressing this difficulty (O'Sullivan, 2011). The principal provided the time for the PLC despite other areas of focus that usually take place during Croke

Park time, such as staff meetings and teacher planning. This was an important characteristic of the study as PLCs that become part of the school routine and are not seen as an additional pressure are more likely to be effective (Harris & Jones, 2010). In this school the principal had provided time for the PLC but despite this the 'busyness of school life' was a challenge to developing the PLC. The principal remarked on this challenge:

Schools are busy places and it's difficult to find time for everything. You have to ringfence time, now when you ringfence time for something it happens. Even, there have been times when we had to change dates during the course of the year because of all the things that were happening in the school (Principal, Interview)

Fortunately, the principal had a strong belief in the research initiative and although two scheduled dates of the PLC meetings had to be cancelled due to other school commitments that arose, the principal ensured that they were rescheduled. Again, this portrays how crucial the support of leadership is for creating and sustaining effective PLCs.

Regarding the challenges to engaging in collaborative planning and lesson study, Anne reflected:

It's time really. I suppose if both teachers are on the same page and have prioritised to do it but it's just trying to get everything else covered and then you might have arranged to do it and something else comes up like an assembly or someone coming into the school. I think time of year affects it as well (Anne, Interview).

The 'busyness of school life' was a factor that hindered teacher change for inclusive practice in the school. Anne had intended to engage in lesson study but found it difficult to find time for this endeavour due to pressure relating to covering the curriculum and other school events that arose such as assembly. This was an issue that impacted my observation of teachers in the classroom. On the first arranged date to observe practice

one of the participants could not participate as a meeting with the NEPs psychologist lasted much longer than the participant had anticipated. As a result, we arranged an alternative date for the observation. On the second observation date another participant became ill and so an alternative date was arranged for the observation. Kieran and Rebecca also encountered time as an obstacle to engaging in lesson study. They collaboratively planned a lesson however, Rebecca was not able to observe Kieran "because of time limits and course days" (Rebecca, Interview). Niall observed Kieran in Rebecca's place and was enthusiastic about this approach. However, he noted the challenges to lesson study:

It's definitely an approach I'd like to continue to try again but the observation is hard with time because the learning support team are so stretched in the school as it is it's hard to get cover for your class or for other teachers to observe you (Niall, Interview).

Cover for classes was also difficulty for teachers. Seven out of ten participants mentioned cover as a barrier to engaging in lesson study and collaboration. The participants felt supported by the principal in arranging cover for their classes in order to engage in lesson study but participants found that they had to rely on learning support teachers to cover their classes in order to engage in observation and that this was not ideal:

I think it's just a matter of timing and who's going to stand into your class and if you've someone coming in from learning support is a child missing out time? So really I don't know how feasible it is but I think it's a brilliant idea in theory. It's great and we should be doing it all the time but it's the matter of time (Hilary, Interview)

The difficulty of time did not only pertain to lesson study. The attendance of some participants at PLC meetings was impacted due time pressures and as previously mentioned the PLC would probably not have developed if Croke Park time was not

allocated for it. Despite the challenge of time and the busyness of school life the participants persevered in developing inclusive practice and maintained their enthusiasm for adopting an inclusive pedagogical approach in their classrooms. For example, two of the participants were engaged in the Droichead (Teaching Council, 2016) process during the PLC development. Despite being engaged in Droichead, Rebecca and Emily sustained their participation and the implementation of inclusive practice in their classrooms. It is evident that the benefits of engaging in the PLC outweighed the challenges presented to the participants. Notwithstanding the additional pressures that presented to the participants, seven out of eight of the class teachers showed evidence of deep learning regarding inclusive pedagogy and implemented inclusive practice in a sustained manner in their classrooms. This supports the literature that purports PD for teachers must meet their class needs and align with the interests and needs of the teachers both personally and professionally which supports a bottomup approach to PD (Bubb & Early, 2008). This approach to PD contrasts with the dominance of mandatory PD under accountability and reform agendas which can negatively impact on teacher engagement with collaborative professional inquiry (Cochran-Smith & Lytle, 2009; Hargreaves, 2007). The challenge for the development of the Cosán Framework (Teaching Council, 2016b) is to increase personalised approaches to PD that are designed to support the needs and interests of teachers through a choice of learning opportunities.

Challenges in Pupil Learning

While mostly positive outcomes were reported for the participants' pupils, there were some pupils that did not appear to benefit from some of the inclusive pedagogies as reported by six of the class teacher participants. Kieran mentioned his concerns regarding one particular pupil:

Even with the choice he couldn't make a choice, he couldn't figure out what he wanted to do and he'd pick something that wasn't suited to him and he'd just wander away after a few seconds and pick something else (Kieran, Interview)

Kieran found it difficult to effectively include this child despite taking an inclusive pedagogical approach. He was concerned that the pupil had a language disorder but felt that he could not address this pupil's needs despite the efforts of the PLC. Perhaps more sustained engagement in critical dialogue (Parker et al., 2016) in the PLC could have helped Kieran to explore how to overcome this challenge. Diane too expressed concern relating to one of her pupils: "The boy with ASD, if he has a choice he can nearly get too fixated on certain things and we're trying to get him out of his comfort zone so I'm not sure how much it suited him" (Diane, Interview). Diane was trying to move this child away from becoming fixated on particular activities within the Aistear setting and elsewhere. Diane felt that choice would be valuable for this particular pupil at a later stage after some further work on encouraging the pupil to engage in a wider variety of activities. Diane could have benefitted from some further support in using choice with this child perhaps in the PLC or through peer coaching. However, other participants overcame the challenge that Diane had in her class. For example, Niall discussed how he had changed the rules regarding choice to prevent a pupil with ASD in his class from repeatedly choosing the same option, reflecting engagement in critical dialogue and public sharing of work (Parker et al., 2016). In Niall's class the pupils could only pick the same option twice in the week and this ensured that pupils did not 'fixate' on certain activities (Niall, Interview). On reflection Diane could have been further challenged to problem solve regarding the use of choice with this child. Emily also discussed how she believed that choice did not suit one of her pupils with SEN:

I have to say it just didn't really work for the child with Mild GLD, it just didn't work for him but with some tweaking maybe. I think he just needs to have an SNA with him. He needs to be guided all of the time (Emily, interview).

Emily suggested that her use of choice needed further "tweaking" demonstrating her alignment with the IPAA view of difficulties in learning as teaching dilemmas to be solved. Perhaps options needed to be based on pupil interest in order to engage this particular pupil or perhaps he needed to be presented with two options to begin with. The challenges mentioned by participants might have been overcome through further PLC sessions focused on collaborative problem-solving around these challenges or as suggested above through peer coaching or engagement in lesson study.

These findings demonstrate the complexity of needs that the teachers were confronted with in developing inclusive practice. For some participants it was felt that SNA support would be valuable for some pupils with SEN categorised as 'low incidence' (DES, 2005) that present significant challenges to learning, as these pupils required additional support in making choices or in engaging in activities. For example, Anne found that one of her pupils who struggled in the classroom had difficulty in making a choice. She remarked: "I think he needs someone in the class with him, like a SNA" (Anne, Interview). Arguably the pupils who had difficulties in engaging in choice needed more time and focused teaching to develop their capabilities for making choices. Rebecca explained how although there was a SNA in her classroom, it was still challenging to enact inclusion as the SNA was assigned to two children. In her class there was a pupil who had cerebral palsy and a pupil with ASD. Rebecca explained that challenges she encountered in meeting the needs of these two children in particular:

We [class teacher and SNA] try to split time between them but you've the whole class as well. A few weeks ago when you were observing I had to spend time with the boy with ASD, he needs one to one attention and then

there are another couple of boys as well who are not focussed and need help, it would be great if there were four SNAs! So that was difficult as well with written work and work that demands a lot of focus, while every child was included not every child was working to achieve their best (Rebecca, interview).

This finding reflects research in the Irish context which found that the role of SNAs often extends to the provision of educational support for pupils with SEN despite DES specification that SNA duties must be of a non-teaching nature (Logan, 2006). The confusion surrounding the role of the SNA presents as a barrier to inclusion (Travers et al., 2010). The confusion around the SNA role has resulted in varying practices in schools and limited knowledge regarding effective practice in this area (Shevlin et al., 2008). Research suggests that this kind of teaching support does not necessarily have a positive impact on student attainment and can potentially result in less teacher engagement in pupil learning, the development of over-dependency on this type of support and isolation from peers (Giangreco & Doyle, 2007). However, in situations where I observed pupils who had SNA support (3/8 teachers) I did not observe over-dependency of pupils on SNAs. The presence of SNAs in these instances facilitated increased support for pupils in general during co-operative learning activities.

The Deputy Principal captured some of the other difficulties in meaningfully including particular children with SEN:

We have needs in our Autism Unit that we can only meet to a certain degree because we don't have enough coming from the support services that we would like to cater for. Like we're not speech and language therapists or occupational therapists but we are often given packs and expected to sort it out. Our resource teachers at the moment are bombarded with information on being an expert at dyspraxia, on this that on the other and we're given packs but we're not given the medical guidance or the help to do it, it has a huge impact on inclusion for a certain group of children (Deputy Principal, Interview).

Arguably the Deputy Principal had a medical or deficit view of SEN but the reality for him was that there were external therapists working with pupils who had an expectation that teachers would support their work, despite insufficient time for collaboration in this regard. This finding aligns with research in the Irish context which identifies inadequate access to external support services as a barrier to inclusion (Rose et al., 2015; Shevlin et al., 2008; Travers et al., 2010). The literature supports extending PLCs to include other professionals (Stoll et al., 2006) and the participation of therapists working with pupils within the school could be beneficial to developing inclusive practice for all learners. It is evident that extending what is ordinarily available for 'most' and 'some' to all pupils in the classroom as advocated by Florian (2014), presents a challenge for teachers in enacting an inclusive pedagogical approach in this context. Emily reflected this challenge in her comment: "I don't think it there's any easy answer and that wasn't the fault of the PLC, there's no simple answer". What emerges from the research findings is that including all pupils without marking anyone as different presents a considerable challenge for teachers.

Conclusion

The research findings presented in this chapter convey how the PLC, underpinned by the IPAA framework, impacted on teacher professional learning for inclusive practice in a number of ways. The PLC had a positive impact on teachers' (7/8) beliefs and attitudes towards inclusive practice as they moved towards rejecting deterministic beliefs about pupils with SEN. In addition, the participants (7/8) broadened their view of inclusion to concerning all pupils rather than just pertaining to the pupils with diagnosed SEN. Teachers' efficacy for inclusive practice was improved as a result of teacher engagement with the PLC. The participants (7/8) felt that the supportive environment of the PLC had affirmed their practice and developed their

confidence in their capabilities to enact inclusive practice. The PLC evidently impacted on teacher's inclusive practice which was evidenced in observation of teaching and the sharing of pupil outcomes which were impacted by their new practices. Seven out of eight teachers evinced use of new practices at a critical level while one teacher was at the technical level of use (King, 2014). The PLC positively influenced teacher collaboration for inclusive practice as reflected in teacher engagement in lesson study approaches, shared planning, shared feedback, and team teaching for inclusive practice, displaying teachers working at a variety of levels of collaboration (O'Sullivan, 2011). There were certain systemic factors that clearly helped teacher change in this study which aligned with the findings of King (2014); successful pupil outcomes, support from school leadership, and the fostering of teacher agency. The creation of a safe and supportive environment in the PLC was also paramount to teacher learning in addition to the sustained nature of the PD. However, there were some systemic factors that also hindered teacher change which included: lack of time to collaborate, reported challenges in pupil learning, and other reported common barriers to inclusion such as lack of support from external agencies in terms of speech therapy and psychological support. The following discussion chapter will explore the implications of these research findings for policy and practice in detail.

Chapter Five: Discussion of the Research Findings

Introduction

This thesis explores the extent to which a PLC can contribute to teacher professional learning for inclusive practice in a primary school. The design of the PLC was informed by the IPAA (Florian, 2014), and key literature pertaining to PLCs and teacher professional learning (Harris & Jones, 2010; King, 2014, 2016; O'Sullivan, 2011; Parker et al., 2016; Stoll et al., 2006; Vescio et al., 2007). This chapter will:

- critique the IPAA in relation to how it supported teachers to develop inclusive practice
- evaluate how effective the PLC model was for developing teacher professional learning for inclusive practice in a primary school
- identify key design principles to underpin PLCs for inclusive practice
- assess the suitability of the Framework for Planning PD (King, 2016) and the Professional Development Impact Evaluation Framework (King, 2014) for planning and evaluating the PD initiative.

The Impact of the Inclusive Pedagogical Approach in Action Framework

The development of inclusive education has become a dominant international policy focus in education since the Salamanca Act (1994) and particularly in the Irish context, since the 1998 Education Act and subsequent EPSEN Act (2004). However, teacher education for inclusive education has struggled to prepare and support teachers to enact inclusive practice (Forlin, 2010). Regardless of the stage of career trajectory, teachers report a lack of knowledge, confidence and competence in this area (Florian, 2014; Forlin, 2010; Rose et al., 2015; O'Donnell, 2011; Travers et al., 2010). In addition, inclusion often connotes a focus on learners with SEN which potentially limits the inclusion of other learners at risk of marginalisation, such as those from

disadvantaged backgrounds (Mac Ruairc, 2013). Furthermore, the conception of special education can compound the notion of difference (Florian, 2014; Gallagher, 2014; Rioux, 2014) and the structures of schooling exacerbate difference by providing support to pupils with SEN that reinforces marginalisation (Florian, 2014; Slee, 2011). Drawing on the frameworks of Paine (1990) and Norwich (1996), Lawson et al. (2013) call for a move away from individualised and categorical and group perceptions of difference, which serve to perpetuate disparity between learners. They argue for an understanding of diversity as "an epistemological, relational, political and ethical matter" (p. 117). Consequently, teaching responses to diversity must be informed by contextual and pedagogical views of difference. Adopting an inclusive pedagogical approach (Florian, 2010) is advocated to respond to diversity in a way that acknowledges differences between learners but also considers responses to such differences that are inclusive of all learners (Lawson et al.).

Research has shown that when teacher education incorporates an inclusive pedagogical approach, teachers are supported to create classrooms in which learning opportunities are made available to all children (Florian & Spratt, 2013; Spratt & Florian, 2015). In this study, the PLC was underpinned by inclusive pedagogy which emerged from a study of the craft knowledge of teachers who successfully supported student achievement, while simultaneously fostering inclusive learning environments (Florian & Black-Hawkins, 2011). The research participants in this study engaged in an inclusive pedagogical approach to develop their inclusive practice in the classroom. The research findings evidence that the IPAA framework supported the class teacher participants (7/8) in this endeavour to a great extent, and one participant to some extent. The focus on the IPAA in the PLC had a positive effect on teacher professional learning for inclusive practice in terms of:

- 1. attitudes and beliefs towards inclusive practice
- 2. efficacy for inclusive practice
- 3. individual teacher practice
- 4. teacher collaboration for inclusive practice

The impact on teacher professional learning related to the three assumptions outlined in the IPAA (Florian, 2014) (Appendix A) which will now be discussed.

Accounting Difference as an Essential Aspect of Human Development

Offering choice to pupils in their learning is a key facet of inclusive pedagogy and was chosen as an area of focus in the PLC. The participants adopted new practices related to offering choice in their classrooms which had mostly positive results for pupil learning at the research site as reported by class teacher participants (7/8) and observed in practice (Observation Schedule: 10/2/16, 18/5/2016). This in turn impacted positively on teacher attitudes and beliefs towards inclusive practice which is key to the development of inclusive schools (Forlin et al., 2014; Mac Ruairc, 2016). Changes in beliefs and attitudes pertained to the participants moving from the view of inclusion as concerning only pupils with SEN, to a broader concept of inclusion that considers all learners. In addition, the IPAA supported the participants to reject deterministic thinking about ability. This teacher change was influenced by positive pupil outcomes. When pupils were offered choice, most were more motivated and engaged in their learning, and produced work of improved quality. In some instances, the participants were surprised by what their pupils had achieved when given the choice, and this led to a change in participants' (7/8) beliefs about fixed ability. However, rejection of deterministic beliefs about ability was not evident in the practice of one participant who expressed an inclination towards ability grouping for the teaching of numeracy (Anne,

Interview). Despite engagement in the PLC (although having missed two sessions) this participant's beliefs about ability remained static, unlike the other participants who rejected ability grouping in their classrooms: "you can't teach maths to high achievers and low achievers at the same time" (Anne, Interview). This finding suggests that sustained support is required beyond a six-month period to challenge and deconstruct deterministic beliefs about ability for some teachers.

Teachers Believing they are Capable of Teaching all Children

The second assumption of the IPAA framework refers to teachers believing that they are capable of teaching all children (Florian, 2014). Associated with this concept is "a belief in one's own capacity to promote learning for all children" (Florian, 2014, p. 19). The participants implemented new practices involving choice which resulted in improved pupil outcomes. Consequently, participants' (7/8) reported improved efficacy for developing inclusive practice. However, the IPAA on its own did not improve teacher efficacy. The PLC provided the safe and supportive environment for teachers to engage in critical dialogue and public sharing of work (Parker et al., 2016) which contributed to teacher affirmation. Such pedagogies were key to unpacking teachers' conception of pupil learning, which aligns with research that highlights discursive strategies as key to teachers taking a critical approach to difference and hegemonic perceptions of ability (Mac Ruairc, 2016; Peters & Reid, 2009).

Research into how teachers enact inclusive pedagogy in their classroom has documented the craft knowledge of experienced teachers who espouse the principles of inclusion (Black-Hawkins & Florian, 2012; Florian & Black-Hawkins, 2011). In addition, research has explored how teachers who have engaged in initial teacher education which incorporates inclusive pedagogy enact the IPAA in their classrooms (Florian & Spratt, 2013; Spratt & Florian, 2015). These documented practices and

enact inclusive pedagogy in their classrooms. However, there is a lack of research into how teachers can enact pedagogy that marks no one as different in situations where learners experience significant challenges. While participants in this study were successful in creating environments that provided learning opportunities for all pupils without marking any one pupil as different, most of the time, six of the participants reported that differentiation through choice didn't work for all pupils. There were some situations where the participants struggled to avoid approaches which marked some pupils with SEN as different, despite engaging in critical dialogue and sharing of practice in the PLC. For example, Kieran expressed disappointment regarding one child who had difficulty with choice:

perhaps part of that was a failing on my part for not teaching him how to make a choice and stick with it but it fed into other areas of school life as well. I think it's a language disorder (Kieran, Interview).

Despite giving this child individual attention within lessons, Kieran struggled to facilitate this pupil in engaging in choice. He suggested that more explicit and intense instruction on choice was needed for this child, reflecting this challenge as a teaching dilemma to solve. However, he concluded that perhaps a language disorder was the problem thus reverting to the view of the difficulty in learning as a deficit "within" the pupil (Florian, 2014). Another example of difficulty with differentiation through choice occurred in one lesson which I observed in Rebecca's classroom (Observation Schedule, 15/6/2016), where a child with ASD struggled to stay on task and demonstrated frustration during the lesson. Rebecca had taken an inclusive pedagogical approach by developing a whole class lesson, which accounted for the diverse learning needs of all pupils, in addition to the rejection of ability grouping. She reflected on how she had to give one pupil a lot of individual support in order for him to engage in the

task, which meant that she could not provide support to the other pupils (Rebecca, Interview). In this case, the pupil required individualised support which conflicted with the IPAA. However, this additional support enabled the pupil to engage in the lesson. In another case, there was difficulty in offering choice to a pupil with Mild GLD. Emily found that this pupil required a lot of additional individual support to engage in learning, and he had difficulty in making appropriate choices. Emily doubted the suitability of choice for this pupil (Emily, Interview). Arguably the pupils in the participants' classes who needed 'something different' than their peers required preteaching before they were expected to engage in choice. Therefore, explicit instruction and modelled practice with the whole class in preparation for the lessons may have prevented the pupils from encountering the level of difficulties that were experienced.

The teachers in these three cases had to adapt their teaching approaches to meet the needs of the pupils who had difficulty with choice, reflecting the notion of continua of teaching approaches that may be adapted to different degrees of intensity depending on pupil needs (Lewis & Norwich, 2005; Norwich & Lewis, 2007). However, considering the research findings, it could be argued that IPAA did not support the teachers to include some children with SEN without marking them as different. This finding is consistent with research carried out by Lindsay et al. (2014) which identified elements of the inclusive pedagogy approach that proved impracticable in certain cases. Lindsay et al. (2014) suggest that inclusive pedagogy could prove difficult to enact for students with high functioning autism, who may need individualised strategies to address behavioural issues, echoing arguments that learners with ASD may need different approaches (Jordan, 2005). Contrary to the findings of Lindsay et al. (2014) there was some evidence of the IPAA supporting teachers to effectively include pupils with ASD and other pupils with SEN. In relation to one pupil with ASD, Niall reported

that "socially, getting to choose which group he was part of was of great benefit to him" (Niall, Interview). While Diane expressed concern regarding including a pupil with a Moderate GLD (Down Syndrome) engaging in choice (RRJ, PLC 2, 10/2/2016) she successfully supported him to make choices by using pictures that were available to all the class (Observation Schedule, 18/5/2016). This reflects an inclusive pedagogical approach of responding to learner difficulties in ways that consider all children, rather than using strategies aimed at individual children (Spratt & Florian, 2015).

The challenges that six participants met in including some learners with SEN echoes research carried out by Sorensen (2011) which included 12 class teachers who were providing inclusive education for children with 'significant' SEN (i.e. low incidence categories of SEN, DES, 2005). Teachers reported that including such children necessitated greater amounts of time in terms of one to one support and that they felt a sense of guilt in relation to balancing support for children with significant SEN, and other children in the class. Therefore, it is proffered that a minor adjustment to the IPAA would be beneficial which could acknowledge that there may be certain cases where individualised strategies may be necessary to meet learner difficulties as arguably no one strategy or approach will work with all learners in all contexts. However, teaching strategies which highlight difference serve to compound the marginalisation of children who already experience isolation (Florian & Spratt, 2013). Therefore, it is critical that any adjustment to the IPAA would not be a carte blanche for teachers to use exclusionary approaches in meeting the needs of pupils with SEN, for example deciding at the outset of a lesson that a pupil with SEN will need SNA or additional support to engage in an activity or using overt differentiation such as differentiated expectations for pupils. This reflects the importance of teachers developing a repertoire of practices that can be drawn upon to meet different learning

needs, rather than one set of practices for all learners (Florian, 2014; O'Gorman & Drudy, 2010). Teaching dilemmas in effectively including learners cannot be simply solved by providing the same type of support or approaches, as difference in learners cannot be characterised as homogenous. (Lawson et al., 2013). In such cases, critical dialogue and collaborative problem-solving is paramount to developing effective approaches and thus overcoming dilemmas in teaching. Furthermore, external expertise could prove invaluable to supporting teachers in collaboratively problem solving teaching dilemmas. External support was highly valued by the participants in this study and supported their engagement with the IPAA. This study substantiates the literature that reports challenges in defining inclusion, in addition to difficulties in enacting inclusion in educational contexts. As noted by O' Gorman and Drudy (2010, p. 159) "much of what teachers believe about the educability, the appropriate educational setting and responsibility for students with special needs may have to be unlearned, and so, teachers require support to meet the challenges of inclusion".

Drawing on expertise external to the school is recommended in supporting schools to effectively develop collaborative inquiry and to sustain and extend PLCs (O'Sullivan, 2011; Stoll et al., 2006). The external support provided by the researcher in this study aided the participants' engagement in critical dialogue that challenged their views about inclusive practice. This support also engendered equity among the participants as there was no hierarchy among the teachers, which was mentioned as having a potentially negative impact on collaboration (Kieran, Interview). Furthermore, there was an implication of accountability as mentioned by the participants. The external support was present on agreed dates which encouraged participants to sustain their commitment to the PLC (Kieran, Emily, Hilary, Interview). This study evinces that teachers can be supported to engage in the IPAA through critical dialogue and

public sharing of work in a PLC and this model of PD could be valuable for teachers and schools. In addition, the teachers were supported to collaborate for inclusive practice which is deemed paramount to developing inclusive schools (Ainscow, 2016; Florian, 2014).

It is not suggested that the IPAA is a menu of options or that the enactment of inclusive practice occurs in a typical way, it will depend on the unique context and the individual children in the class context (Spratt & Florian, 2013). This aligns with the contention that recipes for effective inclusive schools cannot "be applied universally, but rather to suggest ingredients that might be worthy of further consideration within particular contexts" (Ainscow, 2000, p. 76). Hence, considering that each context, as well as each child, is unique, it is unlikely that any one framework will cover all aspects and situations of practice in developing inclusive pedagogy. This research study identifies that the IPAA framework is a valuable tool in supporting teachers to develop inclusive practice. It is particularly useful in a PLC context, where dominant narratives around inclusive and special education can be challenged, and where teachers can inquire into their own practice to enact inclusive pedagogy. However, external support would be beneficial to supporting teacher engagement with the inclusive pedagogical approach as indicated by the research findings.

Teachers Continually Developing Creative New Ways of Working with Others

The teachers in this study successfully enacted the third concept of the IPAA which relates to teachers working with others in creative ways to develop inclusive practice. The school leadership supported teacher collaboration and this enabled participants to engage in collaborative problem-solving, shared planning, lesson study and observation, and the development of inclusive practice through team teaching.

Teachers could face barriers to developing an inclusive pedagogical approach to the full extent if leadership support for collaboration is absent. Teachers need to be provided with support structures such as time to collaborate and the arranging of supervision of classes, to engage in approaches such as lesson study. The IPAA suggests that teachers should collaborate with other adults in the school, in addition to other professionals outside the classroom in developing inclusive practice. However, participants reported that there was limited scope for working with other professionals such as psychologists and speech therapists, which presented as a challenge to meeting the needs of pupils with SEN. While teachers are not expected to give therapeutic support to pupils there was an expectation from professionals such as speech therapists and occupational therapists that the Deputy Principal and other support teachers would incorporate some suggested activities into their teaching. However, there was no space for teachers to collaborate with external professionals, who could provide guidance in meeting the specific needs of pupils with SEN in the classroom. This mirrors findings on barriers to inclusion in Irish schools (Shevlin et al., 2008; Travers et al., 2010). Time for collaboration with such external professionals could develop teachers' professional learning in meeting the needs of their pupils and in turn impact pupil learning.

The IPAA is proffered as a framework that is useful for researchers in the field of inclusive education and for use in teacher education and professional development contexts to support students and teachers in examining their own inclusive pedagogy (Florian, 2014; Florian & Spratt, 2013). It is widely acknowledged that initial teacher education cannot prepare teachers for every aspect of teaching and learning over a career span (Conway et al., 2009). However, it appears that there is a need for an increased focus on developing inclusive practice (Forlin, 2010). Broader integration of inclusive pedagogy in initial teacher education programmes is recommended, however,

the inclusion of discrete modules on inclusive education is contested by some for compounding the notion of inclusive education as something outside of the norm (Forlin, 2010). The approaches taken in the IPP at the University of Aberdeen could inform ITE in the Irish context, for example use of inclusive pedagogy as the theoretical underpinning for ITE courses. However, the integration of inclusive pedagogy in ITE has implications for the PD of teacher educators as research has shown an inadequacy in their experience and knowledge of this field (Florian, 2012; Forlin, 2010). This study has shown that over a short period of time, a PLC which encompassed the IPAA, supported newly qualified and experienced teachers to develop inclusive practice in their classrooms, with positive outcomes for teacher and pupil learning. The Initial Teacher Education for Inclusion project (ITE4I) (NCSE 2015 -2018) comprises of a research team across three universities (University College Cork, Manchester Metropolitan University & University College London) which is currently researching how inclusive pedagogy can be embedded in ITE programmes and therefore could consider the research findings presented in this study.

The Impact of the PLC Model of PD on Teacher Professional Learning for Inclusive Practice

Policy in education promotes PLCs for teacher learning in which the teacher acts as a reflective practitioner, one who participates in "school-based collaborative enquiry" (Teaching Council, 2011b, p.21). However, there has been little policy guidance on how best to approach such collaboration and a dearth of research on how PLCs can support teacher learning for inclusive practice (Pugach & Blanton, 2014). This study demonstrates that the PLC provided a supportive space for collaborative reflective inquiry which resulted in teacher professional learning for inclusive practice. When considering the key components that contribute to creating and sustaining effective

PLCs, there are a number of support structures that need to be in place (Bolam et al., 2005; Harris & Jones, 2010; O'Sullivan, 2011; Stoll et al., 2006; Vescio et al., 2008). Leadership has been identified as crucial to creating and sustaining effective PLCs, as the school leader is key to developing cultures where learning is valued and collaboration is promoted (Bolam et al., 2005). The research findings indicate that the support of the principal was critical to the success of the PLC in this study, thus supporting the noted significance of leadership in supporting teacher learning (Bolam et al., 2005; Harris & Jones, 2010; O'Sullivan, 2011; Stoll et al., 2006). The principal displayed characteristics of leadership support that are associated with creating the organisational capacity for change as identified by (King, 2016, p. 583) which include:

- Top-down support for bottom-up initiatives
- Procedural and conceptual knowledge of new practice
- Facilitate diffusion of practice through providing time for collaboration and resources
- No micromanagement
- Enablement of teacher leadership
- Help build capacity for change:
 - > practices not mandated
 - > allowing teachers to volunteer
 - ➤ hiring staff open to collaborative practice

The final characteristic of hiring staff open to collaborative practices was not evidenced in this study however the other characteristics were demonstrated by the principal which align with an agentic leadership style (King, 2016). Such agentic leadership engenders teacher leadership, irrespective of teachers' roles, to seek top-down support for identified initiatives to support pupil learning (King, 2016). In this study, the principal ensured that participation in the PLC was voluntary. However, as noted by Earley and Bubb (2004, p. 80) "professional development does not just happen – it has to be managed and led". Therefore, PLCs need a change-agent or advocate as is necessary for any non-mandatory PD initiative to develop in schools (King, 2014). In

this case, an external facilitator proposed and led the initiative but it was brought to the attention of the principal by an internal advocate (Kieran). The initiative aligned with the school ethos as well as the principal's own values relating to education, which supports the notion that preconditions relating to school structure, culture and leadership need to be in place for principals and teachers to embrace change for school improvement (Bjorkman & Olofsson, 2009). The principal provided the top-down support for the development of a bottom-up approach to PD. The participants highly valued the leadership support, which empowered them to take agentic approaches to their practice, an important factor in developing teacher professional learning (King, 2014, 2016; O'Sullivan, 2011). However, even when effective leadership support is in place, PLCs may not be successful (Bolam et al., 2005; Harris & Jones, 2010).

While the support of leadership was central to this study, there were several other factors that also contributed to the success of the PLC. Studies that have identified significant considerations in planning PD in general (King, 2014, 2016; Kennedy, 2014; Parker et al., 2016) and features of effective PLCs (Bolam et al., 2005; Harris & Jones, 2010; O'Sullivan, 2011; Stoll et al., 2006) were regarded in the design of the research initiative. Furthermore, the PLC in this study was characterised by signature pedagogies identified as requisite for supporting teacher professional learning in the PD context, namely: critical dialogue, public sharing of work, and communities of learners (Parker et al., 2016). The PLC displayed the surface, deep, and implicit structures of these three signature pedagogies as described in Chapter Two (Figure 2.4, p. 62). These pedagogies supported teacher professional learning for inclusive practice in a collaborative setting. The creation of a safe and supportive PLC, where participants shared their work and engaged in critical dialogue about their practice, precipitated changes in the participants' attitudes towards and efficacy for inclusive practice, in addition to changes

in teachers' practices, which aligns with research studies in effective pedagogies for teacher learning (Parker et al., 2016; Shulman, 2005) and teacher learning for inclusive practice (Peters & Reid, 2009). The PLC provided an opportunity for the participants to reflect on their practice and to problem-solve and construct new knowledge (Cochran-Smith & Lytle, 2009; Parker, et al., 2016). The participants valued this critical dialogue which was something that they did not get an opportunity to engage in very often. Engagement in critical dialogue was evidenced during the PLC sessions in particular when critical conversations took place regarding challenges to implementing differentiation through choice. I collaborated with the participants to problem solve on challenges that teachers faced in the classroom.

Challenging the participants' beliefs was key to my facilitation of the PLC (Peters & Reid, 2009). However, on reflection, I could have challenged some of the teachers in their thinking about choice to a greater extent. For example, in the case of Diane who was doubtful about the suitability of choice for the pupil with ASD as he could 'fixate' on certain options. Yet time constraints were a factor here and I was also aware of my responsibility of creating a safe environment underpinned by mutual trust. Pushing too far, too soon, could have had a negative impact on participant engagement with the PLC or the motivation to implement differentiation through choice. If the PLC continued for a longer period of time, the teachers' beliefs and thinking could be challenged further as the foundation of trust had been established. The participants valued the culture that was created in the PLC in which they felt safe to share their practice with their colleagues on a regular basis: "In this it was easier to engage with everybody because we knew everyone and it wasn't intimidating at all to engage with everyone and then it was an ongoing thing" (Emily, Interview). Public sharing of work in an environment which is safe and supportive, allows teachers to "build capacity as

professional leaders and teachers" (Parker et al., 2016, p. 146) and formal and informal opportunities for teachers to share their work leads to affirmation of practice (Parker et al., 2016). Participants described how their practice was affirmed and how their confidence in developing inclusion was enhanced as a result of participating in a supportive and collaborative PLC. A safe space was cultivated for participants to share their work, which affirmed their own practice and resulted in teachers engaging in new practices and forms of collaboration, which enhanced their inclusive practice in the classroom.

Engagement in a community of learners is identified as a signature pedagogy that holds promise for supporting teacher professional learning (Parker et al., 2016). At the surface structure of the PLC, the participants engaged in collective learning around a shared focus of teacher growth. The deep structure of the PLC provided support and encouragement that promoted teacher learning. The implicit structure of the PLC provided a "safe learning environment" to explore inclusive practice and to challenge hegemonic views relating to SEN and ability (Parker et al., 2016, p. 142). The participants valued the community aspect of the PLC and noted that it was more effective than other forms of PD. Teachers working in a community of learners work in a collaborative way, can lead to learning from one another (Stoll et al, 2006). This was the case for the participants in this study. The participation of the teachers in the PLC impacted on their professional learning for inclusive practice which substantiates the validity of communities of learners as a signature pedagogy for teacher professional learning, in addition to research which identifies PLCs as a potentially transformative model of PD (Kennedy, 2014). External support was key to developing effective pedagogies in the PLC and therefore could be considered in developing PLCs for inclusive practice.

External Support

I as the facilitator of the PLC carefully considered the essential characteristics of successful PLCs as identified in the literature (Bolam et al., 20115; Harris & Jones, 2010; Stoll et al., 2006; Vescio et al., 2007). The participants viewed the external facilitation as important to the success of the PLC, aligning with research that advocates drawing on external expertise in developing teacher professional learning in schools (Armour & Yelling, 2007; O'Sullivan, 2011; Parker et al., 2016; Stoll et al., 2006).

Developing pedagogies for teacher professional learning is a laborious task warranting sufficient time to foster professional and collegial relationships, which can be enhanced through careful facilitation (Parker et al., 2016). Providers of PD must consider the role of the facilitator as two-fold: "being leaders (providing expert input, helping teachers to work together) and followers (supporting the specific learning needs of PLCs as identified by them) (Armour & Yelling, 2007, p. 195). In addition, facilitators must challenge teachers' professional beliefs and values through critical dialogue (Parker et al., 2016). This is a challenge for teacher education policy and practice to embrace.

The research findings in this study support the characteristics of effective PLCs as documented in the literature (Bolam et al., 2005; Harris & Jones, 2010; O'Sullivan, 2011; Stoll et al., 2006). Overall, the participants valued the PLC model as effective for developing their own learning and practice in the classroom and they (4/8) noted how it was a useful form of collaboration during after-school mandated hours. Schools have autonomy to use Croke Park Hours for various activities one of which includes PD. Considering that PD should be aligned with the needs of teachers and the school, it is positive that the options of how this time is used is at the discretion of the school. However, the research findings from this study could provide a vignette of good practice for use of Croke Park hours for PD. In my experience as an advisor with PDST

the provision of PD during Croke park hours is a once-off event, demonstrating the interest of the DES in providing PD to numbers of schools rather than impact on teacher professional learning and pupil outcomes. However, as evinced in the literature and in this study, sustained and collaborative PD is more effective for teacher professional learning.

This study evidences that the IPAA can support professional learning for developing inclusive practice in a PLC context in a primary school when supported by an experienced facilitator with knowledge of the field. Therefore, it is suggested that support services (i.e. NCSE Support Service, PDST) for teacher PD incorporate sustained models such as PLCs. Furthermore, facilitators of PLCs need to develop expertise in leading critical dialogue and inquiry (Armour & Yelling, 2007; O'Sullivan, 2011). This echoes previous research on PLCs in the Irish context that recommended qualified facilitation of PLCs through university-school linkages (O'Sullivan, 2011). This has implications for feasibility and sustainability which could be negated by taking a capacity building approach to developing PLCs for inclusive practice. Such an approach was effective in previous research on collaborative learning for oral language in the Irish context (King & Feeley, 2014). In Ireland, 987 teachers completed postgraduate studies to either masters or doctoral levels in special and inclusive education between 2000 and 2014 (Travers & Savage, 2014). University-school partnerships could coach and support such teachers to lead PLCs for inclusive practice within their own contexts. Competent facilitation of PLCs to develop inclusive practice captures the elements of professional learning as outlined in Cosán (Teaching Council, 2016b) as well as the literature regarding effective models of PD (Kennedy, 2014; Fraser et al., 2007). Hence, key design principles relating to the development of PLCs

for inclusive practice in primary schools could be considered for future research, policy, and practice in this area.

Design Principles to underpin PLCs for Inclusive Practice

There is a wide body of literature that identifies the key characteristics necessary for creating and sustaining effective PLCs, as referred to in this study (Bolam et al., 2005; Harris & Jones, 2010; Stoll et al., 2006; O'Sullivan, 2011; Vescio et al., 2008). However, it is pertinent to identify the specific characteristics of the PLC in this study which contributed to teacher professional learning for inclusive practice, to inform further research in the field. Considering the research findings of this study, design principles for developing PLCs for inclusive practice in primary schools are presented in Table 5.1.

Table 5.1 Design Principles: PLCs for Inclusive Practice

- Shared focus for teacher learning
- Effective Pedagogies: Critical Dialogue, Public sharing of work, Collaborative
 Problem-Solving
- Key Systemic Factors: Leadership for Inclusion, Cultivating a Safe and Supportive Space, External/Internal Support, Teacher Agency
- Group, as well as individual, learning is promoted
- Inclusive and Voluntary Membership

A shared focus for teacher learning was identified in previous research (Bolam et al., 2005; Harris & Jones, 2010; Stoll et al., 2006; Vescio et al., 2007) as shared values and vision and a shared commitment to a common goal. When developing a PLC for inclusive practice, it is essential that one area of focus is chosen that is relevant to the

needs of teacher and pupil learning. The IPAA provides an effective framework to support the development of inclusive practice. In this study differentiation by choice was the area of focus chosen by the participants. Choosing one area of focus ensured that improvements in teaching and learning were achievable and realistic. Participants valued the learning achieved in developing their inclusive practice and the impact new practice had on pupil outcomes. It is important that teachers do not feel overwhelmed in engaging in a PLC for inclusive practice. When teachers feel confident and competent in the chosen methodology, the PLC may move on to another area of focus.

Critical dialogue is identified as a signature pedagogy for teacher professional learning (Parker et al., 2016) and was crucial in this study. The literature refers to reflective professional inquiry and engagement in reflective dialogue as characteristics of PLCs (Stoll et al., 2006) which are lauded for developing teacher professional learning (Cochran-Smith & Lytle, 2009). Critical dialogue encompasses reflection and inquiry but also has surface, deep and implicit structures that go beneath the surface to analyse teaching and learning, in order to problem-solve and to construct new knowledge. In this study, critical dialogue encompassed a discursive practice approach in challenging hegemonic assumption about inclusion and inclusive practice (Peters & Reid, 2009). Critical dialogue challenges teachers' professional beliefs (Parker et al., 2016) and in this study enabled the participants to question established practices and their impact on inclusion. For example, critical dialogue enabled Diane to challenge her use of overt differentiation strategies resulting in a new conception of inclusive differentiation (Diane, Interview).

Public sharing of work is a signature pedagogy for teacher professional learning (Parker et al., 2016) that can involve teachers sharing their practice through critical dialogue, shared lesson planning and feedback, observation, lesson study, pupil work

samples and records. Public sharing of work affirms teachers' practice and develops teacher growth as well as promoting teachers as advocates for their profession (Patton, Parker, & Pratt, 2012). In this study, public sharing of work led to improved efficacy and increased capacity for inclusive practice, as teachers' practice was affirmed and new knowledge was created.

Collaborative problem-solving is essential to developing teacher professional learning for inclusive practice. The literature identifies collaboration and collective responsibility for student learning as characteristics of effective in PLCs (Bolam et al., 2005; Stoll et al., 2006). However, collaborative problem-solving is different in that it refers to collectively working together to find solutions to teaching dilemmas. It is underpinned by critical dialogue and can encompass the development of a wide range of activities to improve pupil learning such as collaborative inquiry, sharing work samples, sharing practice, sharing planning, shared preparation for lesson study, and planning for team teaching. This reflects different levels of collaboration (O'Sullivan, 2011) (Figure 2.5) that teachers can progress through when supported by collaborative problem-solving.

Systemic factors to support teacher learning are key considerations in the planning of any PD (King, 2016) and in this study included: leadership for inclusion, cultivating a safe and supportive space, external support, and teacher agency. External support was valuable in this study and arguably could be provided by university-school partnerships and PD support services. This external support could be provided initially with a view to developing within-school capacity for internal support from teachers who have engaged in postgraduate studies in inclusive education. However, access to advice and support from the university would be beneficial for teachers leading PLCs in their own schools. Effective PLCs are characterised by openness, networks and

partnerships which could involve seeking external sources of learning and ideas and it is important to build mutual trust, respect and support among staff members (Stoll et al., 2006). The Design principle of cultivating a safe space builds on these characteristics. Facilitation of PLCs, whether within school or through external support, must cultivate a safe and supportive atmosphere. This was instrumental to teacher engagement in critical dialogue and public sharing of work in this study. Another systemic factor that supports teacher professional learning is support from school leadership (King, 2014, 2016). Research emphasises the importance of leadership support for developing effective PLCs (Stoll et al., 2006), and for the development of inclusive schools (Mac Ruairc, 2016). The school leader in this study displayed positive beliefs towards inclusive practice and was enthusiastic and supportive of the PLC. This was crucial to the success of the PLC in this study as documented by the research findings and therefore is conceived as leadership for inclusion which suggests support for developing an inclusive school in which a critical approach to difference is encouraged through open dialogue (Mac Ruairc, 2016). Recruitment of school leaders could consider how he or she will develop an inclusive school and support collaborative professional learning. School leaders may also need PD to support the whole-school development of inclusive practice. The final systemic factor, teacher agency, is noted as key to developing teacher professional learning (King, 2014, 2016) and was considered in planning and implementing the PLC, for example affording the teachers the autonomy to choose what they wanted to try in their classrooms.

The final two design principles echo previous research. In effective PLCs group, as well as individual, learning is promoted (Stoll et al., 2006) All members are learners and collective learning also occurs through collective knowledge creation (Louis, 1994). In this study, the participants developed their learning as a group as well as

individuals which was evident in the PLC sessions, as well as in observation of practice. Support for individual learning arguably allows for teachers to develop at their own practice in relation to changes.

Inclusive and voluntary membership is important in developing PLCs for inclusive practice. The literature advocates that membership of PLCs should extend to the school-wide community (Bolam et al., 2005; Stoll et al., 2006). Support from external professionals such as speech and language therapists was mentioned as potentially helpful to developing inclusive practice at the research site and so PLCs for inclusive practice could include members other than teachers. The voluntary aspect of PD has been identified as significant in previous research (Hargreaves, 2007; Opfer & Pedder, 2011b) and in this study it ensured buy-in from participants, who were interested in participating in the PLC to develop their own learning, rather than because of external pressure from leadership or elsewhere.

These design principles build on previous research on PLCs for teacher professional learning. They also consider the factors that contributed to the success of the PLC in developing inclusive practice in this study. These principles are recommended for consideration in future research into developing PLCs for inclusive practice and in designing PD experiences for teachers in this area. The use of frameworks for planning and evaluating the impact of the PLC on teachers' practice will now be discussed.

Professional Development Planning and Impact Evaluation Framework

Research into the factors that contribute to implementation and sustainability of new practice over time identified key considerations for planning effective PD experiences (King, 2016). These considerations are outlined in the Professional

Development Planning Framework (King, 2016), which provided support in the conceptualisation and design of the PLC in this study:

- Baseline
- Degree and Quality of Change
- Systemic Factors
- Learning Outcomes
- PD Experience

(see Appendix E for more details).

As recommended by the framework, baseline information regarding teacher and pupil needs was obtained at the outset, in order to plan for an effective PD experience. Improvement in pupil outcomes is the main objective of PD and while this was important in this study, the main focus was to explore how a PLC could develop teachers' inclusive practice. The systemic factors were vital in planning the PD. In terms of support for professional learning, a PLC was planned which would be facilitated by the researcher and supported by the leadership and an internal advocate. The planning of the initiative design and impact considered evidenced based characteristics of high quality PD and effective PLCs, as well as how to structure the PLC in relation to time, duration, and the development of collegial and professional collaboration. Teacher agency was fostered by affording teacher autonomy over implementation of new practices. The learning outcomes relating to knowledge, skills, and attitudes pertinent to developing inclusive practice were identified in the literature, in particular the inclusive pedagogical approach (Florian, 2014). Finally, the PD experience in terms of activities and experiences that would be appropriate for developing an inclusive pedagogical approach, were considered in the planning process. The Professional Development Planning Framework was therefore a useful tool in conceptualising an effective model of PD in this study.

In order to assess impact in an evidenced based manner, the PD Impact Evaluation Framework (King, 2014) was used and deemed valuable in assessing the extent to which the PLC contributed to teacher professional learning for inclusive practice after the intervention had taken place. Figure 5.1 presents the framework with reported research findings added for each consideration.

Table 5.2 Professional Development Impact Framework (King, 2014): (Responses relating to research findings added for each prompt)

Professional Development Impact Evaluation Framework			
Impact	Key Consideration	Prompts	
Baseline	Motivation	Reasons for engaging with PD: Teachers had concerns regarding inclusion of pupils with SEN Leadership motivation to develop whole school approaches: collaborative practice (principal) and team teaching (deputy principal)	
	Expectations	What do we want to achieve? Participants expected to improve inclusive practice	
PD Experience	Activities/Experiences/Model	Initial satisfaction with the experience: Participants reported positive outcomes for teachers and pupils	
Learning Outcomes	Teachers	Knowledge, skills, attitudes acquired enhanced or affirmed: Participants reported improved attitudes and beliefs towards inclusive practice. Knowledge was enhanced regarding developing inclusive practice	
Degree and Quality of Change	Organisational	Process: Structure of PLC noted as important for future collaboration in the school Product: Differentiation resource booklet uploaded to shared staff folder for all teachers to access	
	Teachers' Practice	Personal: Positive impact on beliefs and attitudes towards new knowledge (inclusive pedagogy) and inclusive	

		practice. Improved efficacy for
		inclusive practice.
		Professional: Participants accepted
		and used new knowledge and skills in
		their teaching at a critical level (7/8)
		and a technical level (1/8)
		Cultural: PLC developed to support
		inclusive practice, lesson study, shared
		planning and development of team
		teaching for inclusive practice.
	Student outcomes	Affective: Increase in pupil motivation
		Cognitive: Reported improvement in
		quality of pupil work
		Psychomotor: Increase in independent
		learning
	Diffusion	Some in-school diffusion (team
		teaching, Teachmeet, informal
		conversations with colleagues)
Systemic Factors	Factors that helped/hindered engagement with/sustainability of new practices	Support: Effective leadership support,
		Advocate-led support (Kieran)
		Initiative Design and Impact: Well-
		structured, successful in developing
		teacher learning for inclusive practice
		Teacher Agency: Participants were
		willing and open to new practice,
		motivated and showed deep learning
		of inclusive pedagogy

The prompts to examine the degree and quality of change relating to teachers' practice, student outcomes, and diffusion were particularly helpful in gauging the impact of the PLC on inclusive practice. The prompts for evaluating student outcomes were broader than academic attainment, which is just one aspect of student learning. The prompts also related to the impact on student attitudes and dispositions, and skills and behaviours, which was particularly relevant to the research findings in this study. The impact of the PD on teachers' practice is classified into personal, professional, and cultural which clarifies the type of impact on teacher learning. Furthermore, the levels of use are helpful in determining the degree to which teachers understood and implemented the new practice. The levels of collaboration (O'Sullivan, 2011) (Figure

2.5) were useful in determining the degree to which teachers in this study collaborated in implementing the new practice. Therefore, it is suggested that these levels could be adopted into the PD evaluation framework. The systemic factors outlined in the framework were shown to be particularly influential in the development of teacher learning in the research findings. This framework is constructive for measuring the impact of professional development in this context. Both frameworks contributed to the design and evaluation of the PLC. The literature (e.g. Bubb & Earley, 2010; King, 2014, 2016; O'Sullivan, 2011) supports the importance of planning and evaluating PD to ensure better outcomes for teacher professional learning and in turn pupil learning. The planning and evaluation frameworks employed in this study would be beneficial for future research into effective models of PD, useful for PD providers, and useful for schools engaging in school improvement initiatives. These frameworks are underpinned by substantial professional development research, which can be explicated by researchers and providers of PD. Therefore, it is proffered that schools draw on external guidance and support in using the frameworks initially to support schools in developing a clear understanding of the key considerations for planning and evaluating professional development.

Conclusion

This chapter has provided a detailed analysis of the research findings in relation to the extent to which the PLC contributed to teacher professional learning for inclusive practice. The IPAA framework and PLC model of PD were critiqued in relation to developing teacher professional learning for inclusive practice. Design principles to underpin the development of PLCs for inclusive practice were identified and described. Finally, the efficacy of frameworks for planning and evaluating PD in this research study was explored. The following chapter provides a conclusion to this research study.

A succinct summary of the literature, methodological approach, and research findings is outlined. Limitations of the study are presented and a synthesis of the implications of this research for future research, policy and practice is described.

Chapter Six: Conclusion

Introduction

This chapter draws the study to a close. A summary of the research dissertation, including a synthesis of the research findings, is presented. This chapter also identifies limitations of the study and implications of the research for future research, policy, and practice. Finally, recommendations are proffered for developing teacher professional learning for inclusive practice.

Summary of the Research Approach

This research study set out to explore the impact of a PLC on teacher professional learning for inclusive practice in a primary school. It sought to address a gap in the research in relation to how teachers can be supported to enact inclusive pedagogy in the classroom. The theoretical framework (Table 2.3) was informed by the inclusive pedagogical approach in action (IPAA) framework (Florian, 2014), pertinent literature relating to creating and sustaining effective PLCs (Harris & Jones, 2010; O'Sullivan, 2011; Stoll et al., 2006; Vescio et al., 2008), research on effective pedagogies for teacher professional learning (Parker et al., 2016) and key research regarding planning and evaluating PD (King, 2014, 2016). The theoretical framework informed the development of a PLC for inclusive practice in an urban primary school, involving eight mainstream class teachers and two school leaders. This study was underpinned by a predominantly qualitative, single-site case study design. The methodological approach employed observation of practice, participant interviews, participant reflective logs, a researcher reflexive journal and pre- and post-study SACIE-R and TEIP scales. The qualitative data analysis method encompassed a six-step approach to thematic analysis (Braun & Clark, 2006), while the quantitative data was analysed using the Wilcoxon Signed Ranks Test for repeated measures (Connolly, 2007).

While inclusion has been promoted on a global level and endorsed through legislation and government policies in many countries, the goal of inclusive education is still a distant reality (Florian, 2014; Shevlin et al., 2013). The development of inclusive education has been fraught with challenges both domestically and internationally (Florian, 2014; Forlin, 2010; Rose et al., 2015; Travers et al., 2010). Chapter Two explored the challenges to teacher professional learning for inclusive practice, which are summarised below:

- The contested debate about defining inclusion and inclusive education has
 inhibited progress in the area which is compounded by competing
 understandings of difference (Florian 2014; Lawson et al., 2013; Norwich &
 Lewis, 2007).
- Marketisation of education has promoted an emphasis on standardised
 assessments, league tables, and competition. This focus serves to affirm
 education's normative centre as its ideal place and therefore educational
 progress for pupils with SEN is arguably less valued, as it falls outside of 'the
 norm' (Florian, 2014; Gallagher, 2014).
- Teacher education for inclusive practice across the teacher education continuum is paramount to the development of inclusive schools. Yet, the literature has demonstrated that initial teacher education does not sufficiently prepare teachers to effectively include all learners (Forlin, 2010; O'Donnell, 2012) and PD opportunities in inclusive education for teachers are insufficient (Rose et al., 2015; Shevlin et al., 2008; Travers et al, 2010).
- The impact of PD in terms of implementation and sustainability of change in practice generally appears to be tenuous (King, 2014, 2016). Research has shown that PD is more effective when it is planned (King, 2016) and effective

PD for teacher change is characterised by sustained and collaborative learning processes that involve critical dialogue, public sharing of work, and PLCs (Kennedy, 2014; King, 2014, 2016; Parker et al., 2016). Yet these are not the norm in the Irish context where teacher PD is still largely characterised by 'inservice training' (Murchan et al., 2009)

This research examined the impact of a PLC on teacher professional learning for inclusive practice in a primary school. The study investigated the factors that supported teachers to enact inclusive pedagogy (Florian, 2014) and evaluated the PD initiative in terms of its impact on teacher learning and sustainability of new practices (King, 2014, 2016).

Limitations of the Research

This was a single-site case study and therefore the findings cannot be generalised to the population. However, the research findings can provide key recommendations for developing teacher professional learning for inclusive practice in the school context and for policy in this field. One limitation of this study pertains to the sample, which lacked representation of learning support/resource teachers. As mentioned previously, the reason for this was unclear. It is possible that the learning support/resource teachers did not view developing inclusive practice as relevant to them, as the school was only beginning to develop team teaching at the time of the study. The learning support/resource teachers worked mainly within a withdrawal model and perhaps did not participate as they were teaching one to one or small groups with similar levels of learning needs, rather than a class with diverse needs. However, despite this limitation, the participants involved in team teaching (Niall and Niamh) during the study reported that the learning support/resource teachers used differentiation through choice and showed positivity towards, and interest in, the new

practices. Furthermore, the Deputy Principal, who has responsibility for leading the special education department within the school, was very positive towards differentiation through choice and reported that it could be developed further in the school in the next academic year, through team teaching and lesson study.

Another limitation of the study pertained to time constraints that impinged on teacher engagement with the PLC. Some participants missed either part, or all, of a PLC meeting, while one participant missed two meetings (Table 3.3). Participants reported difficulties engaging in collaboration outside of the PLC, such as limited availability of cover for their class. As a result, some participants did not engage in a lesson study approach, despite displaying interest in such.

The pre-and post- study scales did not show statistically significant changes in participants' beliefs and efficacy. This is possibly due to the small sample size and the duration of the PLC over a six-month period. The scales were used to assert a baseline of the participants in this study which proved to be quite high, yet in the PLC the teachers reported significant challenges in practice. This correlates with research elsewhere that indicates teachers' beliefs exceed their practice (Opfer & Pedder, 2011a). Perhaps a PLC developed over a longer period of time would result in changes of a statistical significance. However, the qualitative data analysis evinced that the PLC had a positive impact on teachers' beliefs and attitudes towards, and efficacy for, inclusive practice. Arguably these scales could have been omitted from the study. However, it was decided to retain the scales in order to maintain the integrity and honesty of the study. While there were no significant findings arising from the scales in this context, the reported operationalisation of the scales could be informative for researchers who wish to replicate the study in other settings. This could allow researchers to make an informed choice about use of the scales and provide

triangulation in any future such studies where there is evidence of a statistical significance.

Summary of the Key Findings in relation to the Research Questions

The primary research question underpinning the research was "To what extent does a PLC contribute to the development of teacher professional learning for inclusive practice in a primary school?" This question was broken into five sub questions (Table, 6.1). These questions were informed by the theoretical framework outlined in Chapter Two (Table 2.3).

Table 6.1 Research Questions

- 1. To what extent does a PLC impact teachers' attitudes and beliefs towards inclusive education?
- 2. To what extent does a PLC impact teachers' efficacy for inclusive practice?
- 3. To what extent does a PLC impact teachers' practice in relation to inclusive education?
- 4. What were the key factors that contributed to change in teachers' professional practice and learning during the six-month period of the PD experience?
- 5. What were the factors that hindered teacher change in the research site?

The IPAA framework (Florian, 2014) supported the participants to (a) question their beliefs about difference and ability (b) develop a broader conception of inclusion. Focusing on developing a key component of the IPAA, differentiation through choice, enabled the class teacher participants to develop new practice in their classrooms to varying degrees which led to improved pupil outcomes. Most of the participants

employed mixed-ability groupings and made learning opportunities available for all in their classrooms. As a result, the teachers (7/8) demonstrated a rejection of deterministic beliefs about ability evincing the first assumption of the IPAA relating to difference as an essential aspect of human development (Florian, 2014). Initially the participants indicated a view of inclusion as predominantly relevant to pupils with SEN. However, at the end of the study the participants (9/10) evidenced a broader view of inclusion as relating to all learners in the classroom. The participants also reported improved confidence in their capabilities to include all learners. This improved efficacy for inclusive practice resulted from collaborative problem solving, critical dialogue, public sharing of work, and positive pupil outcomes. There was evidence of deep learning of inclusive pedagogy among the class teacher participants (7/8). These participants were operating at a critical level of use regarding new practice and participant collaboration for inclusive practice was evident at a number of levels (King, 2014, 2016; O'Sullivan, 2011).

Diffusion of practice was facilitated to some extent through team-teaching with non-PLC participants, a 'Teachmeet' with the whole teaching staff, and informal conversations in the school outside of the PLC. Systemic factors that supported teacher change aligned with research elsewhere (King, 2014, 2016) which included successful pupil outcomes, support from school leadership, and teacher agency. Some challenges to new practice presented regarding time for collaboration, difficulties to enacting inclusive pedagogy regarding some pupils with SEN, and a lack of support from external agencies. Notably teachers used agency to mediate some of these issues such as using autonomy to arrange support structures for engagement in lesson study approaches. The participants reported high satisfaction with the sustained nature of the PLC and in particular the creation of a safe and supportive space and guidance from an

external facilitator. This evidences the significance of collaborative, sustained models of PD to develop teacher professional learning for inclusive practice.

Synthesis of Findings

This research presents significant findings which include:

- An illustrative sample of the operationalisation of PD planning and evaluation frameworks (King, 2014, 2016) in relation to inclusive practice
- A model of how inclusive pedagogy (Florian, 2014) can be enacted in primary school when supported by a PLC
- Design principles to underpin PLCs for inclusive practice

The following sections provide a synthesis of these three key research findings that contribute to new knowledge.

An Illustrative Sample of the Operationalisation of PD Planning and Evaluation Frameworks for Inclusive Practice

The paucity of research on the evaluation of teacher PD has been noted in the literature (King, 2014, 2016; Ofsted, 2006) which prompted research on planning for and evaluation of PD for teacher professional learning. The PD planning and evaluation frameworks arising from this research (King, 2014, 2016) build on and incorporate elements of frameworks devised previously (Bubb & Earley, 2010; Guskey, 2002b; Hall & Hord, 1987). Research indicated that the PD evaluation framework was fit for purpose in the context of evaluating the long-term impact of a PD initiative on teachers' professional learning in five primary schools in the Irish context (King, 2014). Systemic factors that supported the implementation and sustainability of teacher change in the study were incorporated into a PD planning framework (King, 2016). The frameworks are proffered to support schools and teachers in conceptualising PD to enhance teaching and learning, in addition to assessing the impact of such in context. This research study

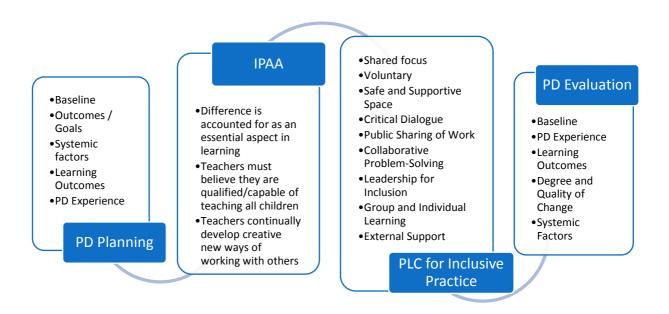
provides a further illustrative sample of how these frameworks can support planning and evaluation of PD for teacher professional learning in a different context in terms of the model of PD, teaching and learning focus, and school context. The research findings indicate that the PD planning framework was informative for the conceptualisation of the PLC for inclusive practice. The PD evaluation framework offered relevant prompts for assessing the impact of the PLC on teacher professional learning for inclusive practice. It is suggested that in addition to the model of collaboration (e.g. lesson study, peer coaching, PLC), the levels of collaboration (O'Sullivan, 2011) (Figure 2.5) are incorporated into the frameworks, to enable teachers to assess the degree to which collaboration occurs within the school.

Considering that evaluation of PD has traditionally been superficial, focusing mainly on participants' initial reactions (Guskey, 2002b; Rhodes et al., 2004; O'Sullivan, 2011), schools who wish to engage in these frameworks face the likelihood of a much more comprehensive process of planning and evaluation than previously experienced. I as the researcher in this context engaged with a substantial review of the relevant literature in the area and found that it took time to comprehend the various components of the frameworks. It is recommended that schools engage in external support for initial use of the frameworks, with a view to building capacity for independent engagement. Alternatively, the frameworks could be supplemented with guidelines for schools that enhance ease of use for teachers and school leaders. This study suggests that the frameworks are of significant value in developing a PLC for inclusive practice. The IPAA was also highly valuable in the development of the PLC which will now be discussed.

How the IPAA Supported Teacher Learning for Inclusive Practice

A significant outcome of this research study is that it evidences how the IPAA framework can support teachers to develop their inclusive practice in the context of a PLC. Heretofore, published research into how teachers enact inclusive pedagogy and the way in which the IPAA can support this enactment, has been focused on teachers who have engaged in the Professional Graduate Diploma in Education in the University of Aberdeen (Florian, 2014; Florian & Spratt, 2013; Spratt & Florian, 2015). This study investigated how a PLC that is underpinned by the IPAA, can support teachers in an Irish primary school to meet the needs of all learners (Figure 6.1).

Figure 6.1 Developing a PLC to Support Teacher Professional Learning for Inclusive Practice



The findings demonstrate that a PLC underpinned by the IPAA can support teachers in the enactment of inclusive pedagogy. Some participants (6/8) reported challenges to enacting inclusive pedagogy regarding some learners in the classroom, however it is possible that further engagement in critical dialogue and collaborative problem-solving around specific cases could overcome teaching dilemmas. While the IPAA emphasis should remain on avoiding teaching approaches that mark any child as different it is proffered that the IPAA acknowledges that some learners may need additional individualised teacher support. It is proffered that this individualised support may not be pedagogically different but drawn from a continua of teaching strategies based on pupil needs (Norwich & Lewis, 2007). There were a number of variables which contributed to teacher engagement in an inclusive pedagogical approach.

First, the focus on differentiation through choice proved to be an achievable goal for the teacher participants. Teacher change is a complex and slow process and attempts to transform practice must start with small and realistic targets (Fullan, 2001; Guskey, 2002a; King, 2014; Opfer & Pedder 2011b). As advocated by the literature regarding PLCs (Stoll et al., 2006; Vesico et al., 2008) it was important that there is a shared vision in a PLC and further to this, a single focus determined by the participants, ensured an alignment with identified teaching and learning needs in their classrooms. Despite focusing on one component of the IPAA - differentiation through choice - teachers displayed other practices relating to inclusive pedagogy such as formative assessment, working in team-teaching partnerships with other non-participant teachers in developing inclusive practice, and social constructivist approaches such as cooperative learning (Florian, 2014). Furthermore, positive pupil outcomes arising from the implementation of new practices had a positive effect on teacher beliefs and attitudes towards, and teacher efficacy for, inclusive practice.

Second, provision of practical examples of how to implement the new practice was a variable that supported the enactment of inclusive pedagogy. The differentiation

resource booklet (Appendix U) provided teachers with tangible and practical examples of how choice could be offered in the classroom and was noted to be extremely beneficial by the participants. This reflects other research findings which indicate that teachers respond well to PD which offers practical ideas relevant to everyday practice in the classroom (Fullan & Miles, 1992; Guskey 2002a). The teachers used this resource to inform their practice in addition to adapting examples to suit the needs of their pupils demonstrating teacher agency for inclusive practice.

Third, the PLC provided a safe and supportive space for teachers to collaborate on developing their inclusive practice, in a sustained way in their own school context.

Fourth, external support was highly significant in supporting teacher engagement with an inclusive pedagogical approach. This was noted by the participants as very important in sustaining the PLC and in turn the implementation of new practice relating to inclusion in the classroom. Therefore, the findings suggest that teacher engagement with the IPAA benefits from external expertise.

Finally, identified systemic factors (King, 2014, 2016) contributed to the development of an inclusive pedagogical approach at the research site. These include: support from leadership, teacher agency, and positive impact of the PLC. These findings provide evidence of good practice in relation to teacher PD for inclusive practice and could be considered in the implementation of the new model of allocation of teaching resources for pupils with SEN (DES, 2017b). The new model places responsibility on "the classroom teacher to ensure that each pupil is taught in a stimulating and supportive classroom environment where all pupils feel equal and valued" (DES, 2017b, p. 17b). This study demonstrates the potential of the IPAA framework to support teachers to create such inclusive environments. Furthermore, the DES indicates that the class teacher's role is to encompass the identification of

"additional pupil needs" and responding to such through appropriate differentiation and collaboration with the special education teacher (2017b, p. 17). However, research in the Irish context indicates limited teacher knowledge and use of a range of differentiation strategies (Rose et al., 2015; Travers et al., 2010; Ware et al., 2009) and teachers in the pilot of the new model needed a high level of support for differentiation (DES, 2016b). Therefore, it is likely that teachers will need support to develop inclusive practice that includes appropriate differentiation in the implementation of the new model. PLCs underpinned by the IPAA could support class and special education teachers in collaborating to meet the diverse learning needs of all. Furthermore, the new model signals a shift from the dominant deficit view of learning difficulties and reliance on categories of disability to inform teaching and learning for pupils with SEN (NCSE, 2014). It is likely that teachers will need support to move from viewing SEN labels as learner deficiencies, towards the consideration of difficulties in learning as teaching dilemmas to be solved (Florian, 2014). This study demonstrates how a PLC underpinned by the IPAA framework has the potential to support teachers in doing so.

Design Principles to underpin PLCs for Inclusive Practice

As referred to in Chapter Four, the research findings contributed to identified design principles that should underpin future PLCs for inclusive practice. These principles build on existing research regarding creating and sustaining effective PLCs (Harris & Jones, 2010; Stoll et al., 2006; Vescio et al., 2008) and signature pedagogies for teacher learning (Parker et al., 2016) and incorporate characteristics identified as pivotal to teacher professional learning for inclusive practice in this research study.

- Shared focus for teacher learning
- Effective Pedagogies: Critical Dialogue, Public sharing of work, Collaborative
 Problem-Solving
- Key Systemic Factors: Leadership for Inclusion, Cultivating a Safe and Supportive Space, External/Internal Support, Teacher Agency
- Group, as well as individual, learning is promoted
- Inclusive and Voluntary Membership

While the literature identifies shared vision as crucial to the success of PLCs (Stoll et al, 2006; Vescio et al., 2008) the findings from this study demonstrate that a PLC for inclusive practice needs to begin with a single focus for teacher learning also. As documented, the focus on differentiation through choice provided an achievable goal for teacher learning. The single focus did not prevent teacher learning to extend to other aspects of inclusive practice as identified above. Critical dialogue was key to the development of the PLC in this research which is characterised by surface, deep, and implicit structures (Parker et al., 2016; Shulman, 2005). Public sharing of work replaces the previously identified characteristic of deprivatising practice. Arguably both concepts are the same, however I proffer that public sharing of work connotes a stronger emphasis on teachers taking risks in sharing their practice, sharing evidence of pupil learning, and engaging in collaborative inquiry such as peer observation or lesson study. Collaborative problem-solving is key to working together to solve teaching dilemmas which proved to be valuable in this study. External expertise can provide facilitation of teacher learning that challenges teacher beliefs about their own practice

and pupil learning, and eschews direct instruction. However, it is acknowledged that internal support from teachers who have engaged in postgraduate studies in inclusive education could provide such facilitation, in particular if supported through university-school partnerships or PD support services. External or internal support must foster a safe and supportive environment in order for teachers to engage in the effective pedagogies. Support for teacher agency was key in this study aligning with the literature (King, 2014, 2016) and therefore important in the development of PLCs for inclusive practice. Leadership is key for effective PLCs but in the case of developing inclusive practice leadership for inclusion encompasses effective leadership for supporting teacher professional learning in general, and specific to developing an inclusive school. The characteristics of group, as well as individual, learning is promoted, and inclusive and voluntary membership, emanate from previous research on PLCs and are also central to PLCs for inclusive practice.

Recommendations for Practice, Policy, and Future Research

The research findings from this study have implications for practice, policy, and future research in the field as described below.

Recommendations for Practice

The design principles to inform PLCs for inclusive practice presented here could be used to inform the work of schools in this area. The development of inclusive practice in schools is paramount to supporting all learners, particularly in the context of the new model of allocation of resources for pupils with SEN which signals a transition from a deficit model of learning. This model will require schools to review how they support the needs of their pupils, placing an onus on schools to adopt effective, collaborative, and flexible approaches to teaching and learning for pupils with SEN.

Furthermore, it is advocated that teaching resources for pupils with SEN are allocated

"to facilitate the development of truly inclusive schools" (DES, 2017a, p. 5). Therefore, given the research findings that indicate the PLC enhanced teacher learning for inclusive practice, it is recommended that schools consider developing PLCs for inclusive practice in the context of the new model of allocation of teaching resources for pupils with SEN.

Recommendations for Policy

The research findings have implications for policy development regarding professional development. The forthcoming Cosán framework (Teaching Council, 2016b) could incentivise schools to develop PLCs for inclusive practice. The DES Inspectorate could also advocate the development of inclusive practice as a crucial component for school improvement in future cycles of SSE and promote PLCs as an effective model of PD for inclusive practice. Guidelines for the new model of allocation of resources reference the use of SSE in supporting the effective provision of resources for pupils with SEN (DES, 2017a). However, recommendations and guidelines that focus on SSE regarding the development of inclusive practice for all learners would be helpful for school improvement in this area. It is crucial that such PLCs are not mandated which could negate their potential benefits. Therefore, policy must carefully balance support and encouragement for such with teacher and school autonomy. Given the literature that documents the lack of impact of PD provided by DES support services in the Irish context (Sugrue, 2002; Murchan et al., 2009) and the research findings presented in this study, a shift in focus is required in DES policy from the quantity of schools and teachers who engage in PD to the quality of the PD that is provided. The DES (2016b) recommends a national programme of PD to support schools with the implementation of the new model of allocation. However, it is crucial that any form of national PD avoids the traditional transmissive models of PD

previously employed by DES support services, in favour of sustained models of support such as the development of PLCs for inclusive practice involving teachers and school leaders. The NCSE Support Service could benefit from consideration of the research findings from this study in its endeavour to support schools to become "truly inclusive" (DES, 2017a, p. 5) in the context of the new model of allocation. Such a shift in PD policy focus could be justified by evaluating the long-term impact of PD, which is paramount to informing high quality PD for teacher learning and ultimately pupil outcomes. Therefore, the PD planning and evaluation frameworks (King, 2014, 2016) could be used by PD providers, including the PDST and NCSE Support Service, to assess impact on teaching and learning. In addition, providers of PD could encourage and support schools to use these frameworks in endeavours to develop inclusive practice.

Leadership for inclusion is a vital area of development within the PD context.

School leaders would benefit from the opportunity to engage in PD which supports their development of leadership skills to develop inclusive schools and to support PLCs within their schools. In addition, the demonstration of a commitment to developing an inclusive school could be a prerequisite for perspective principals. This echoes the recommendations of previous research regarding the barriers to inclusion in Irish school (Travers et al., 2010). In addition, time for collaboration must be provided to teachers as part of their work. As noted by Travers et al. (2010), this is essential for the development of inclusive practice but there has been an absence of policy to address this challenge in schools (O'Sullivan, 2011). Considering the research findings in this study it is recommended that a pilot project is developed on the allocation of time within the school day for collaborative teacher learning which could inform a sustainable approach to time for teacher collaboration in the school context.

Recommendations for Research

The Design Principles to underpin PLCs for Inclusive Practice are based on a single-site case study, therefore future engagement and research in this area could test these principles in other contexts. Future research in supporting teachers to develop inclusive practice should investigate the development of PLCs for inclusive practice which are underpinned by an inclusive pedagogical approach in a variety of school contexts. University-school partnerships could contribute to the development of PLCs for inclusive practice in schools. This was also recommended based on the research of O' Sullivan (2011) and was deemed valuable to school improvement in previous research (King & Feely, 2014). This partnership approach could be explored in a research context initially. External expertise could be provided to schools who wish to engage in such PLCs. This external support should aim to build capacity within schools so that the level of external support could be reduced over time. Furthermore, capacity building for the development of inclusive practice could be enhanced by supporting teachers who have engaged in post-graduate studies in inclusive and special education to develop PLCs in this area in their own schools.

Concluding Remarks

This study has provided interesting research findings regarding the development of teacher professional learning for inclusive practice in a primary school. I began this research journey as a primary teacher in a learning support/resource role and was subsequently seconded to the DES funded Professional Development Service for Teachers (PDST). This transition provided a significant insight into the provision of PD to schools and how teachers engage with PD. Standard work for advisors comprises support visits to a large number of schools each year, therefore there is limited capacity to provide sustained support. Policy within PDST incorporated sustained support for a

small number of schools in 2016, which is a positive development. However, DES policy will dictate whether sustained support is viable in the long-term and in a neoliberal policy context, quantity of support visits seems to be valued over quality of impact. As I progressed with my research, I became acutely aware that the structure and model of support that I was required to provide to schools, was unlikely to impact teaching and learning in a significant way. This heightened my commitment to researching the impact of the PLC on teacher learning for inclusive practice. My analysis of the research findings mirrored the literature that purports collaborative professional inquiry as a potentially transformative model of PD. This reinforced my belief in the capacity of PLCs to positively impact on teacher professional learning for inclusive practice. Towards the end of this journey I secured a university lecturing position in inclusive and special education. This is a privileged position which affords me the opportunity to apply my research in a teacher education setting with student and postgraduate teachers, in addition to further researching PLCs for inclusive practice. This research will be important in addressing the barriers to inclusion in schools, particularly in the context of the new model of allocation of teaching resources for pupils with SEN in mainstream schools. I hope that this work will benefit teachers and school leaders who wish to engage in collaborative approaches to meeting the challenges of providing for all, in a way that avoids marking any learner as different.

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Appendices

Appendix A Inclusive Pedagogical Framework (Florian, 2014)

Assumptions	Associated Concepts/Actions	Key Challenges	Evidence (What to look for in practice)
Difference is accounted for as an essential aspect of human development in any conceptualisation of learning	Replacing deterministic views of ability with those that view learning potential as open-ended Acceptance that differences are part of human condition Rejecting idea that the presence of some will hold back the progress of others Believing that all children can make progress	'Bell-curve thinking' and notions of fixed ability still underpin the structure of schooling	 Teaching practices which include all children (everybody) Creating environments for learning with opportunities that are sufficiently made available for everyone, so that all learners are able to participate in classroom life; Extending what is ordinarily available for all learners (creating a rich learning community) rather than using teaching and learning strategies that are suitable for most alongside something 'additional' or 'different' for some who experience difficulties; Differentiation achieved through choice of activity for everyone Rejection of ability grouping as main or sole organisation of working groups Use of language which expresses the value of all children Focusing teaching and learning on what children can do rather that what they cannot Social constructivist approaches, e.g. providing opportunities for children to co-construct knowledge (participation) Interdependence between teachers and learners to create new knowledge, which in turn links to notions of participation Use formative assessment to support learning

Teachers must believe they are	Demonstrating how the difficulties students	The identification of	Focus on <i>what</i> is to be taught (and <i>how</i>) rather than <i>who</i> is to learn it				
qualified/capable of teaching all children experience in learning can be considered dilemma for teaching rather that problems within students Commitment to the support of all learners Belief in own capacity to promote learning for all children	difficulties in learning and the associated focus on what the learner cannot of	Providing opportunities for children to choose (rather than predetermine) the level at which they engage with lessons Strategic/reflective responses to support difficulties which children					
		encounter in their learning					
		often puts a ceiling on learning achievement Many teachers believe some learners are not their responsibility	Interest in the welfare of the 'whole child' not simply the acquisition of knowledge and skills				
	to promote learning for		Flexible approach – driven by needs of learners rather than 'coverage' of material				
			Seeing difficulties in learning as professional challenges for teachers, rather than deficits in learners				
Teachers continually	Willingness to work	Changing	Interplay between personal/professional stance and the stance of the				
develop creative new	(creatively) with and	thinking about	school – creating spaces for inclusion wherever possible				
ways of working with others	through others Modelling (creative new) ways of working	inclusion from 'most' and 'some' to everybody	Seeking and trying out new ways of working to support the learning of all children				
			Working with and through other adults in ways that respect the dignity of learners as full members of the community of the classroom				
			Being committed to continuing professional development as a way of developing more inclusive practices				
			In partnerships formed with teacher or other adults who work alongside them in the classroom				
			Through discussions with other teachers/other professionals outside the classroom				

Appendix B Description of SACIE-R and TEIP Scales

The Sentiments, Attitudes and Concerns about Inclusive Education revised scale (SACIE-R) (Forlin, Sharma & Loreman, 2014) was administered prior to the intervention. Initial work on this scale was carried out in a previous study which developed the Sentiments, Attitudes, and Concerns about Inclusive Education scale (SACIE) (Loreman, Earle, Sharma & Forlin, 2007). The content of the SACIE was gleaned from three scales; Attitudes Towards Inclusive Education scale (ATIES; Wilczenski, 1992); an adapted version of the Interaction with Disabled Persons (IDP) scale (Forlin et al., 2001; Gething, 1991, 1994); and the Concerns about Inclusive Education Scale (CIES; Sharma & Desai, 2002). These three scales were reduced through statistical data methods to form a nineteen item survey according to a Likert scale with four responses: 1=Strongly Agree, 2= Agree, 3= Disagree, 3=Strongly Disagree. Reported reliability of the SACIE scale was 0.83 (Loreman et al., 2007). The SACIE also comprised of some demographic questions based on participants' gender and levels of education. According to Forlin, Earle, Loreman & Sharma (2011) such questions merit inclusion in the survey as findings have shown differences according to these variables. For instance, female participants reported more positively to the SACIE than their male peers (Loreman & Earle, 2007). The SACIE was revised and validated by Forlin et al. (2011) using participant pre-service teachers from Hong Kong, Canada, India, and the United States. The SACIE-R contains fifteen items relating to three constructs: sentiments about people with disabilities; attitudes to accepting leaners with disabilities, and concerns about inclusive education (Forlin et al., 2011). While the SACIE-R was developed with pre-service teachers, the scale was used with in-service teachers in a subsequent study which researched predictors of teaching efficacy for inclusion (Forlin, Sharma & Loreman, 2014). In this research the subscale relating to concerns was only used as the subscales for sentiments and attitudes proved unreliable for the study. The concerns subscale relates to implementation of inclusive practices in the classroom. A Likert-type question regarding knowledge of local legislation and policies regarding disability was also included in the scale (Forlin et al., 2014). For the purposes of this study the full SACIE-R was used.

In order to identify components of the TEIP scale, the researchers examined relevant literature in the field of inclusive education (Danielson, 1996; Forlin et al., 2009; Kuyuni & Desai, 2007; Nougaret et al., 1995; Romi & Leyser, 2006; Winter, 2006) in addition to examining the existing scales on teacher efficacy (Gibson & Dembo, 1984; Tschannen-Moran et al., 1998; Woolfolk Hoy & Spero, 2005). Three main skills that teachers need to

display in order to implement inclusive teaching practices were identified in the literature: "knowledge of content and pedagogy, managing classroom environment and behaviour, and the ability to work collaboratively with parents and professionals" (Sharma et al., 2012, p. 15). The TEIP was tested on 607 pre-service teachers from Canada, Australia, Hong Kong and India. Three constructs were indicated after factor analysis: efficacy in using inclusive instruction, efficacy in collaboration and efficacy in dealing with disruptive behaviours (Sharma et al., 2012). Reported reliability for each of these three factors was strong ranging from 0.85 to 0.93. Furthermore, the scale is deemed suitable for international use due to reliability testing in four different countries. The TEIP was used a later study undertaken by the same researchers which aimed to measure the impact of basic training for inclusion on teacher efficacy for inclusive practices (Forlin et al., 2014). While the TEIP was previously used with pre-service teachers (Sharma et al., 2012), in-service teachers were the focus of this research (Forlin et al., 2014). The TEIP was administered to 737 participants pre and post intervention, in addition to the SACIE-R scale. The data findings revealed an improved sense of teaching efficacy for inclusive education among participants, regardless of demographic background variables, concerns, or attitudes (Forlin et al., 2014). Findings reported indicated an increase in teacher efficacy for inclusive practices across all constructs but most notably relating to collaboration (Forlin et al., 2014). Unexpected findings revealed that there was a correlation between improved knowledge of local legislation and policy regarding inclusive education and teacher efficacy in this area. A link was also noted between the reduction in teachers' concerns relating to their capacity to accommodate students with special needs in an inclusive classroom and improved teacher efficacy for inclusive practices.

Appendix C SACIE-R and TEIP Scales

The Sentiments, Attitudes, and Concerns about Inclusive Education Scale Revised (SACIE-R)

Please circle the response which best applies to you.

SD	D	Α	SA
Strongly Disagree	Disagree	Agree	Strongly Agree

1	I am concerned that students with disabilities will not be accepted by the rest of the class.	SD	D	A	SA
2	I dread the thought that I could eventually end up with a disability.	SD	D	A	SA
3	Students who have difficulty expressing their thoughts verbally should be in regular classes.	SD	D	A	SA
4	I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom.	SD	D	A	SA
5	I tend to make contacts with people with disabilities brief and I finish them as quickly as possible.	SD	D	A	SA
6	Students who are inattentive should be in regular classes.	SD	D	A	SA
7	I am concerned that my workload will increase if I have students with disabilities in my class.	SD	D	A	SA
8	Students who require communicative technologies (e.g. Braille/sign language) should be in regular classes.	SD	D	A	SA
9	I would feel terrible if I had a disability.	SD	D	A	SA
10	I am concerned that I will be more stressed if I have students with disabilities in my class.	SD	D	A	SA
11	I am afraid to look directly at a person with a disability.	SD	D	A	SA
12	Students who frequently fail exams should be in regular classes.	SD	D	A	SA
13	I find it difficult to overcome my initial shock when meeting people with severe physical disabilities.	SD	D	A	SA
14	I am concerned that I do not have the knowledge and skills required to teach students with disabilities.	SD	D	A	SA
15	Students who need individualised academic programmes should be in regular classes.	SD	D	A	SA

Teacher Efficacy for Inclusive Practice (TEIP) Scale

Please circle the number that best represents your opinion about each of the statements.	1	2	3	4	5	6
Please attempt to answer each question	Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly Agree
I can make my expectations clear about student behaviour	1	2	3	4	5	6
I am able to calm a student who is disruptive or noisy	1	2	3	4	5	6
I can make parents feel comfortable coming to school	1	2	3	4	5	6
I can assist families in helping their children do well in school	1	2	3	4	5	6
I can accurately gauge student comprehension of what I have taught	1	2	3	4	5	6
I can provide appropriate challenges for very capable students	1	2	3	4	5	6
I am confident in my ability to prevent disruptive behaviour in the classroom before it occurs	1	2	3	4	5	6
I am confident in my ability to get parents involved in school activities of their children with disabilities	1	2	3	4	5	6
I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated	1	2	3	4	5	6
I am able to get children to follow classroom rules	1	2	3	4	5	6
I can collaborate with other professionals (e.g. teachers for deaf pupils, speech therapists) in designing educational plans for students with disabilities	1	2	3	4	5	6
I am able to work jointly with other professionals and staff (e.g. other teachers) to teach students with disabilities in the classroom	1	2	3	4	5	6
I am confident in my ability to get students to work together in pairs or in small groups	1	2	3	4	5	6
I can use a variety of assessment strategies (e.g., portfolio assessment, modified tests, performance-based assessment, etc.)	1	2	3	4	5	6
I am confident in informing others who know little about laws and policies relating to the inclusion of students with disabilities	1	2	3	4	5	6
I am confident when dealing with students who are physically aggressive	1	2	3	4	5	6
I am able to provide an alternate explanation or example when students are confused	1	2	3	4	5	6

Appendix D Professional Development Evaluation Framework (King, 2014)

Teacher Professional Development Evaluation Framework				
Impact	Key Consideration	Prompts		
	Motivation	Reasons for engaging with this PD		
Baseline	Expectations	Expectations from engaging with this PD		
	Evidence Base	Knowledge, skills and attitudes prior to PD		
PD Experience	Activities/Experience/Model	Initial satisfaction with the experience (overall, content, venue, facilitators)		
Learning Outcomes	Teachers	Knowledge, skills, attitudes acquired, enhanced or affirmed		
	Organisational	Process e.g. reported processes arising from engagement with new practice i.e. new or improved systems e.g. creation of a new approach to needs analysis Product e.g. products arising from participation in new practice e.g. tangible outputs: an improved / new policy		
Degree and quality of Change	Staff / Teachers' Practice	Personal: Beliefs and attitudes towards classroom teaching and students' learning / Teacher efficacy Professional: Quality of use and understanding of new and improved knowledge and skills: Non-use, Orientation, Preparation, Technical, Accepted, Critical or Discontinued Cultural: Forms of collaboration: development of professional learning communities, peer observation		
	Student outcomes	Affective: attitudes and dispositions Cognitive: performance and attainment Psychomotor: skills and behaviours		
	Diffusion	Other adults / students in school Adults / students in other schools		
Systemic Factors that helped/hindered engagement with / sustainability of new practices		Support: Leadership, Advocate/Change-agent and Professional Learning Communities Initiative Design and Impact: structure and success Teacher Agency: teacher openness and willingness; teacher motivation; deep learning of the activity (pedagogy)		

Appendix E Professional Development Planning Framework (King, 2016)

Teacher Professional Development				
Planning	Key Consideration	Prompt Question		
	Individual / School Self- Evaluation	Where are we now?		
Baseline	Targets	What do we want to achieve?		
	Student outcomes	What will the students be able to do: (cognitive, affective and/or psychomotor levels)?		
Outcomes	Organisational	What products/processes will help to achieve the outcomes e.g. policies, staff meetings, time, resources		
	Staff/Teachers' Practice	What instructional practices (evidence-based) will produce the desired student outcomes?		
	Diffusion	How can we enable diffusion of the practices to other teachers and students?		
	Support	What support will teachers need to enhance teacher engagement e.g. leadership support, internal/external advocates, professional learning community?		
Systemic Factors	Initiative Design and Impact	Is the PD design structured and research based, feasible and focused? Consider factors of high quality CPD: duration, collaborative, time-bound Is it evidence-based (producing successful outcomes for students)?		
	Teacher Agency	Are the teachers open, willing and motivated to engage with change / a new practice? Does it meet their personal or professional needs? Are there opportunities to facilitate teachers' pedagogic and pedagogic-content-knowledge development?		
Learning Outcomes	Teachers' Practice	What knowledge, skills, attitudes will be needed to implement changes?		
PD Experience	Activities/Experiences/Model	What activities/training/model of professional development do teachers need to gain the required knowledge or skills? Does the model match the purpose?		

Appendix F Outline of PLC Sessions 1 - 6

PLC Session 1: Wednesday 13th January

- 1. **Introduction (5 mins):** Outline of session (displayed on flipchart). Discussion around desired outcomes from PLC
- 2. Starter activity (15-20 mins):
 - a. Think-pair-share: What do the following terms mean to you:
 - 1. Inclusion
 - 2. Inclusive practice
 - b. Present and discuss: IPAA (Florian, 2014)
 - i. **Difference** is accounted for as an essential aspect of human development in any conceptualisation of learning: rejecting notions of fixed ability
 - ii. Teachers must believe that they are qualified/capable of teaching all children
 - iii. Teachers continually develop creative new ways of working with others
- 3. **Developing Inclusive practices** (40 mins):
 - a. Ask participants what they understand by differentiation.
 - b. Give brief overview of different types of differentiation refer to NCCA (2007)
 - c. Ask participants what they know about differentiation by choice, have they tried it, any examples. Explain it in further detail and give examples e.g. choice boards/think-tac-toe, must do/may do activities, allowing choice for maths stations/Aistear/ Choose questions from Bloom's/Open-ended tasks
 - d. Link differentiation by choice to Florian's IPAA
 - e. What could you see working in your own classroom?
- **Warning re. implementation dip and no panacea but starting slow and trying something new can impact learning outcomes over time**
- 4. **Personal planning (10 minutes):** What are participants willing to try? Think-pair-share: Group consensus on what will be done by next meeting.
 - a. Support from me whatsapp?
- 5. Review of learning (5-10 minutes): Participant learning log

Outline of PLC Session 2: Wednesday 10th February

- Introduction (5 mins): Outline of session (displayed on flipchart).
 Recap on session 1: Discussion on inclusion, inclusive practice, Florian's assumption of inclusive practice
 - i. **Difference** is accounted for as an essential aspect of human development in any conceptualisation of learning: rejecting notions of fixed ability
 - ii. Teachers must believe that they are qualified/capable of teaching all children
 - iii. Teachers continually develop creative new ways of working with others
- 2. **Developing Inclusive practices (40 mins): Think-pair-share**: How did it go this month? What did you try in the classroom? What were the strengths and challenges to what you did? What would you like to improve in your practice going forward? Researcher makes links between practice and the theory:
 - Responding to differences without perpetuating marginalization when some are treated differently
 - School structures exacerbate difference e.g. ability grouping, withdrawal, alternative provision, etc.
 - Not about denying difference but seeking supportive ways of accommodating diversity
 - Belief that all children's capacity to learn can change depending on decisions made in the present
 - Not predetermining level of engagement lifting limits

Choice: AfL to help students understand what would help them in their learning

Warning re. **implementation dip and no panacea but starting slow and trying something new can impact learning outcomes over time**

3. **Personal planning (10 minutes):** Exploring Differentiation booklet in further detail **Lesson Study:** Working with others: Planning a lesson together? Observing a colleague teaching that lesson

Think-pair-share: What are participants willing to try this month?

Group consensus on what will be done by next meeting.

Outline of PLC Session 3: Wednesday 9th March

1. Introduction (5 mins): Outline of session

Recap on session 2: Talk about experiences so far, differentiation by choice as way of differentiating without marking any child as different – why?

Think pair share – after some experience with this do you think it helps with inclusion? Why/why not?

Draw on Florian's framework

2. **Developing Inclusive practices: Think-pair-share**: How did it go this month? - What did you try in the classroom? *Choice Homework/Lesson Study/Choice in class*.

Researcher makes links between practice and the theory:

- Responding to differences **without perpetuating marginalization** when some are treated differently
- School structures exacerbate difference e.g. ability grouping, withdrawal, alternative provision, etc.
- **Not about denying difference** but seeking supportive ways of accommodating diversity
- Belief that **all children's capacity to learn can change** depending on decisions made in the present
- Not predetermining level of engagement **lifting limits**

Choice: AfL to help students understand what would help them in their learning

3. **Personal planning (20 minutes):** Planning time for lesson study approach after Easter? **Lesson Study:** Working with others: Planning a lesson together? Observing a colleague teaching that lesson

Think-pair-share: What are participants willing to try this month?

Group consensus on what will be done by next meeting.

Outline of PLC Session 4: Wednesday 27th April

1. Introduction (5 mins): Outline of session:

- Discussion to begin re. thoughts so far strengths and challenges (15 20 mins) mins)
- Sharing how things went this month (20 mins)
- Time for planning for May. (30 mins)
- Learning Log (5 mins)

2. **Discussion:** (Think pair share 5 mins) Then feedback to the group

- After some experience with this do you think it helps with inclusion? Why/why not?
- Going back to concerns from January about children in your class, do you think
 you have implemented anything, even small that has included those children in a
 greater way?
- Have you been surprised by any child?
- Do you think differentiation by choice impacts student learning?
- What else do you do or could you do as a teacher to create an inclusive classroom? Return to principles of Florian
- Inclusive pedagogy v specialist pedagogy
- 3. **Developing Inclusive practices:** How did it go this month? What did you try in the classroom? *Choice Homework/Lesson Study/Choice in class*.

Co-agency: responsibility for learning shared between teacher and pupil e.g. AfL to help students understand what would help them in their learning – self/peer assessed work – let pupils decide what they need to work on - choosing the level of work they want to do. Trust needs to be built.

4. Personal planning (30 minutes): Planning time for lesson study approach?

Lesson Study: Working with others: Planning a lesson together? Observing a colleague teaching that lesson

Think-pair-share: What are participants willing to try this month?

Bringing samples of children's work?

Group consensus on what will be done by next meeting.

Outline of PLC Session 5: Wednesday 18th May

- 1. Introduction (5 mins): Outline of session:
 - Discussion to begin re. thoughts so far strengths and challenges (15 20 mins) mins)
 - Sharing how things went this month (20 mins)
 - Time for planning for May/June. (30 mins)
 - Learning Log (5 mins)
- 2. **Discussion:** (Think pair share 5 mins) Then feedback to the group
 - Strengths and challenges, advantages and disadvantages
 - How can the **limitations be resolved**? E.g. children who need additional support/Junior Infants...
 - How does differentiation by choice **compare** to other types of differentiation that you've used?
 - How can it be **improved/developed**?
 - How could it be developed/integrated with digital learning?
- 3. **Developing Inclusive practices:** How did it go this month? What did you try in the classroom? *Choice Homework/Lesson Study/Choice in class*.

Co-agency: responsibility for learning shared between teacher and pupil e.g. AfL to help students understand what would help them in their learning – self/peer assessed work – let pupils decide what they need to work on - choosing the level of work they want to do. Trust needs to be built.

4. Personal planning (30 minutes): Planning time for lesson study approach?

Lesson Study: Working with others: Planning a lesson together? Observing a colleague teaching that lesson

Think-pair-share: What are participants willing to try this month?

Bringing samples of children's work?

Group consensus on what will be done by next meeting.

Outline of PLC Session 6: Wednesday 15th June

Questionnaire: 10- 15 mins

Developing Inclusive practices: How did it go this month? - What did you try in the classroom? *Choice Homework/Lesson Study/Choice in class*.

Focus group:

Teacher Change:

- 1. Has this study impacted your learning as a teacher? If so in what way? E.g. did you have experience of differentiation by choice previously?
- 2. Has engagement in this study impacted your teaching? If so, in what way?

School Level:

3. How would you describe the impact, if any, on the school as a whole...at an organisational level e.g. policies, new processes or procedures

Inclusive Practice:

- 4. Do you think differentiation by choice helped you in developing inclusive practice? If so how?
- 5. Has your thinking (attitudes/Beliefs) about inclusion/inclusive practice/special educational needs changed since you engaged in this study? Why/How?
- 6. Having engaged in this study do you feel more confident/capable in developing inclusive practice? If so, why? To what extent?
- 7. Did participation in the PLC foster collaboration with colleagues? In what ways refer to lesson study, peer observation
- 8. What were benefits and challenges to this type of collaboration?

Student learning:

- 9. How do you think your participation in this PLC has impacted on pupil learning in your class?
- 10. Were children engaged in learning or merely participating?
- 11. How much teacher intervention was required to ensure that the children were engaged meaningfully in the choice of activities?
- 12. Do you think differentiation by choice addressed the needs of students with identified needs in your class? Why/why not?
- 13. For the students who you think it did not benefit what supports could be put in place in order for those pupils to benefit?

Going forward:

- 14. Can you see yourself continuing with a PLC/differentiation by choice next year?
- 15. What supports would you need in order to continue?

Model of PD:

- 16. What did you think of this type of professional development? i.e. collaboration in a professional learning community) (frequency of meetings, duration, venue, lecture style.me as facilitator, resources booklet, could someone internally keep it going?)
- 17. Do you think the structure of the PD was effective? How could it be improved

Appendix G Participant Reflective Logs (PLC 1-5)

PRL PLC 1: 13th January 2016 (Participants numbered 1 - 7)

What did you feel went well in this session? What made you think? Did you learn anything new?

- 1. Handbook was a great idea. Lovely to get a bit more info about what inclusion is. Very practical!
- 2. There was a good mutual discussion regarding the meaning of inclusion. The differentiation book seems very useful, we had a great chat about that too and I definitely got some new tips from it and it reminded me to be more aware of how I'm differentiating.
- 3. Loved the differentiation ideas and I'm looking forward to trying out some differentiation by choice strategies.
- 4. Think, pair, share made us think about topic of inclusion what works well for other teachers and sharing of examples. Differentiation booklet was great for examples of resources. Choice Board and learning menu allows for differentiation and inclusion simultaneously
- 5. I thought differentiation lessons/ideas went really well. There is loads of stuff I could use. The learning menu and choice board is definitely new.
- 6. The booklet was great, looking forward to reading some new ideas.
- 7. Ideas and information provided by Aoife. The excellent ideas used and described in the 'Differentiation' pack.

What did you feel didn't work so well or could be improved?

- 1. –
- 2. It was all great
- 3. It's a pity we only had an hour (due to staff meeting)
- 4. I felt it went well
- 5. –
- 6. –
- 7. No, I really enjoyed the session and found it very informative

- 1. Probably is but I'm not sure! Was a good session, no complaints here!
- 2. Keep the tips coming! Especially for infants.
- 3. More of the same really. Glad to hear new strategies/ideas and have chance to talk and share with other teachers
- 4. Examples of practice
- 5. Maybe more specific differentiation lessons i.e. what would it look like with children with a particular need. How it would work/what's an acceptable amount of choice.
- 6. Video clip of examples in classrooms?
- 7. Looking forward to discussing how the differentiation by choice goes with everyone.

Participant Reflective Log PLC 2: 10th February 2016 (Participants numbered 1 - 5)

What did you feel went well in this session? What made you think? Did you learn anything new?

- 1. It was good to hear others' perspectives on how their differentiation went. Also just generally bouncing ideas off each other helped. To get ideas on how to set up some of the tasks/resources made the differentiation seem a lot more 'doable'
- 2. Great discussion. Listening to each other's progress. Use of teaching resources and examples of implementation. Focus for next few weeks.
- 3. Discussion with other teachers and bouncing ideas off one another. Talking about what worked well. Realised new ways choice boards and different activities could be used to benefit children's learning.
- 4. Love hearing the ways in which different teachers implemented the differentiation strategies in their own classes. I got some good ideas to try in future. Also it's reassuring to hear that other people had difficulties with some areas, not just me.
- 5. Hearing about practice in other classes. Loved the idea of choice homework. Adapting materials for younger classes not assuming they wouldn't be able for it.

What did you feel didn't work so well or could be improved?

- 1. Just the timescale of implementing some of these ideas can be a little hard.
- 2. –
- 3. -
- 4. I'm not sure if there was any aspect that could have been addressed in a different way.
- 5. -

- 1. –
- 2. -
- 3. Examples of kids' work or adapted samples from differentiation workbook
- 4. Any new strategies to try are always welcome! Thank you.
- 5. More of the same please!

Participant Reflective Log PLC 3: 9th March 2016 (Participants numbered 1 - 5)

What did you feel went well in this session? What made you think? Did you learn anything new?

- 1. Hearing ideas from the other teachers was great some of the ideas are suitable for all levels
- 2. Love listening to other ideas (differentiated homework)
- 3. Great to have Principal and Deputy Principal to see what is happening. Very useful to be able to plan with others.
- 4. Discussion. Ideas from other teachers. What went well, suggestions. Liked having time to plan with other teachers.
- 5. Planning together. Listening to other lessons.

What did you feel didn't work so well or could be improved?

- 1. –
- 2. Nothing
- 3. -
- 4. Timing bit rushed
- 5. -

- 1. More planning time with Aoife would be great
- 2. The same sort of time allowed for sharing of ideas
- 3. More planning time helps me to commit to it.
- 4. Examples of lessons or work of kids
- 5. Planning time together. Plan a week or two of lessons e.g. scheme of work

Participant Reflective Log PLC 4: 27th April 2016 (Participants numbered 1 - 5)

What did you feel went well in this session? What made you think? Did you learn anything new?

- 1. I enjoyed the amount of discussion around choice boards, menus etc. The ideas were flowing! It really made me reflect and think that it's ok to let the child have autonomy as they will generally then have more confidence and pride in what they do.
- 2. Feel it worked well meeting with other teachers who are trying out different strategies and techniques and sharing their ideas. Also liked seeing examples of methods used and kids' work that was a result of differentiation by choice.
- 3. Great session great to hear what worked in other classes. It made me think to hear how much the children can achieve in the junior classes given the choice.
- 4. It was great to hear about what each teacher's experience to date re differentiation etc. Having shared my lesson with group I also realised how I can improve/change it next time i.e. differentiating by interest rather than ability/pace and still provide choice too.
- 5. Reflecting on my lesson Alphaboxes worked well and captured interest of class. Working in pairs was great they actually worked in pairs and not just side by side. Some pupils surprised me with their ability.

What did you feel didn't work so well or could be improved?

- 1. I feel that it's not as easy to implement this with infants but to be honest that may just be my mind set.
- 2. -
- 3. -
- 4. see above
- 5. -

- 1. Lists of ideas would be great maybe that we could put together ourselves to have something concrete to move on with.
- 2. More examples of kids' work from the activities and examples of introducing choice.
- 3. Future lessons maybe discussing different ways we could group the children for best results. Any other ideas on differentiation to try out (suggestions).
- 4. I like the sharing of ideas so I'm happy to continue with that as we are learning lots from one another.
- 5. Definitely more activity for pupils. Would definitely do it again KWL charts were a hit.

Participant Reflective Log PLC 5: 18th May 2016 (Participants numbered 1 - 4)

What did you feel went well in this session? What made you think? Did you learn anything new?

- 1. Sharing of ideas was great. Great to see examples. Good idea re. listening rubric and pupils rating each other. Linked up well with other sessions.
- 2. It was great to hear what was happening in other class levels. I learned a lot of new ways literacy could be developed in the infant classes something I wouldn't have much experience of.
- 3. I felt that we analysed lessons/idea very well and from that we extended upon them and shared a lot of information I really began to think about the different learning styles and maybe not basing the choices on levels of how challenging they are but on different group types or different learning styles.
- 4. I found it helpful to describe my own lesson and hear suggestions for how I could make the options more accessible (e.g. vocab to help the writers). I learnt that the children put a lot of thought into their responses and that hearing them describe their picture/sculpture is very enlightening.

What did you feel didn't work so well?

- 1. -
- 2. It was great
- 3. Nothing. I found that it was very productive and has made me more aware of my teaching.
- 4. There's a lot of options that are not accessible to junior infants but with the help of others I am learning new ways to adapt them.

What would you like to discuss or address in the final PLC next month?

- 1. How to spread this wider throughout the school? Infants and more options?
- 2. We are going to compile some of the lessons that worked well in practice so it would be great to run through those.
- 3. How to best conclude the choices e.g. show and tells, pair conversations etc feedback to the class. Structure this throughout the year?
- 4. Not sure! A look back on how the different children we had concerns about have progressed. Did differentiation by choice help them or did it help others in ways we hadn't predicted?

Appendix H Extract from Researcher Reflexive Journal

RRJ PLC Session 2: Wednesday 10th February

1. Introduction (5-10 mins):

Recap on session 1: Recap on Florian's assumption of inclusive practice

- i. **Difference** is accounted for as an essential aspect of human development in any conceptualisation of learning: rejecting notions of fixed ability
- ii. Teachers must believe that they are qualified/capable of teaching all children
- iii. Teachers continually develop creative new ways of working with others
- 2. Developing Inclusive practices (40 mins): **Think-pair-share**: How did it go this month?

Participants chatted for 10 mins and then I asked for feedback. The teachers that I had observed described what they had tried and the challenges and positives of the lessons. Niall described his use of the choice board (despite having missed first PLC). He talked about how he taught the activities in isolation before giving choice out of 3 activities. He was positive about using choice board. I drew on his preparation for the choice board and the importance of teaching the activities in isolation before offering the choice of activities. Niamh admitted that she did not try the choice element yet but had tried a literacy activity from the booklet and it had worked very well. She mentioned how her thinking about ability labelling has changed and how she is now aware of determining the level of each child and putting limits on what they can do as opposed to giving them choice and allowing the child to determine their level of engagement. Kieran noted how surprised he was with one child's work on engaging in the choice of learning centre and how his expectations were wrong regarding what the child could achieve. I drew links from their observation to the IPAA.

Warning re. **implementation dip and no panacea but starting slow and trying something new can impact learning outcomes over time**

- 3. Personal planning (10 minutes): Exploring Differentiation booklet in further detail. I explained some of the activities from the booklet in more detail as we ran out of time in session 1. I explained the idea of lesson study and some teachers said they were willing to try this. They also mentioned giving children choice for homework and they liked this idea also. As 3 teachers left early due to other commitments I send a recap message on whatsapp outlining what could be done this month i.e. summary of what lesson study is suggested approach for this month or continue to develop differentiation by choice in own classroom.
- **4.** Review of learning (5-10 minutes): Learning log

Appendix I Summary of Lessons Observed

	Field Notes: Summary of Lessons Observed				
Participant	Lesson 1: 10 th February 2016	Lesson 2: 18 th May 2016			
Diane	Aistear: The teacher presents the choices for "play stations". Teacher calls on a child who didn't get her first choice yesterday to choose first and then goes to different tables to ask children for their choices. She places a peg with the child' name on their choice. One child with Down Syndome picked construction and was very engaged in the play but seemed to rely on the SNA to play with him. All children were engaged in their play activities. A child with ASD joined the class for this play time and mixed well with his peers. The teacher said that since trying the differentiation by choice he has been in different groups each day and so he is not with his usual play mate and his parents are worried he will lose his friend. The teacher has now suggested that he join the class at lunchtime to sit beside his usual friend. She tells me that they usually feed back to class about that they were doing at each station but there wasn't time today.	Choice centres: Children have been working on mini beasts for last fortnight and have participated in a beast hunt. Teacher offers choice of activities to children. Each child must create their mini beast through plasticine, drawing or writing. Teacher demonstrates how to do each activity. Teacher asks children to think about which mini beast they know a lot about. "You are going to show me everything you know about your mini beast". Table where child with ASD sits chooses first (Teacher indicated that was to avoid an emotional outburst). Templates for writing and drawing (with mini beast border) as well as plasticine mats placed at top of room, when children are called they choose an option but go back to their regular table. Teacher circulates to support pupils.			
Hilary	Aistear: Teacher had names of children on pegs and pictures on a line representing the various stations: Blocks, Small world: Circus, Ticket office for circus, Junk yard. Children's names picked and children chose which station. When station became full they chose another. Teacher guided the children who didn't get their first choice. Teacher circulated around the stations to briefly discuss what the children were doing. The teacher commented that the choice in Aistear was working well. Teacher commented how her colleague took note of children who didn't get first choices so she could accommodate them the following day and how she was going to take that approach but so far there had been no complaints about not getting first choice. She thought that children might pick the	Choice centres: Children on mat in front of teacher while she reads picture book "Hey Little Ant!" Teacher used expressive voice to capture children's attention – all engaged in story. Choice of activity to develop predictions about what happens next. Teacher explains each activity twice. Teacher calls names, pupils put peg on their choice. • Drawing: what happens at end of story? • Writing: Write about what happens next • Creating: Plasticine • Acting: masks for ants, act what happens next Teacher invites everyone back to the mat after activities and asks them to turn to partner "knee to knee" and to find out what their partner thinks will happen next. Teacher asks for			

same choice every time but this wasn't the case and they did choose different activities. Sometimes they made choices so they could play with their own friends but she didn't think this was a problem. She said that sometimes children went off task at their stations but they were still engaged in imaginative play so she felt they were still benefiting from Aistear and they choice gave them more ownership over their learning.

responses, most children talked about their own predictions and teacher encouraged them to relay their partner's predictions. Teacher encourages child with SEN to share and SNA helps him. "That's a clever answer"...

Kieran

Choice centres: Class teacher reminds the children of the story that he has read to the class "The Twits". He reminds them that they have discussed their favourite parts of the story. "Remember the wormy spaghetti?", 'remember the short stick..?"

Teacher explains that they are going to do different activities based on their favourite part of the story. Teacher asks them to reflect on their favourite parts and counts down from 10. Teacher explains the activity at each station:

- Dictaphone: recoding your favourite part (he told me that he had shown the class how to use the Dictaphone previously)
- Drawing: draw your favourite part of the story
- Writing: Write about your favourite part of the story
- •Role-play: use the props to act out your favourite part of the story Play dough: create your favourite part using the play dough Choice of activity based on story teacher has read with the class. Teacher has pupil names on lollipop sticks. He places sheet with picture of activity at each station and boxes numbered 1-6 underneath the picture. He tells me that he will give the choice to the pupils who normally stand back during active learning. Teacher tells me one child with SEN surprised him at the play dough table. He has created an elaborate structure from play dough depicting a tree in the garden where the birds are stuck in

Lesson on sight words: Teacher asks each child chose tricky words to improve. Words are displayed on the wall – different colours indicate level of difficulty of words. Children area given clear directions for choosing three words they find difficult or don't know how to read. Choice of partner children asked to quietly find a partner and put arms around partner when ready. Teacher had to assign partners to children who did not find a partner. Mixed ability teams and pairs. Each pair asked to decide who will be A and who will be B. Some pupils can read all words (teacher previously tested the class) and asks these pupils to help pairs in identifying words and testing

Self-assessment: Each child asked to identify 3 tricky words from the word wall that they don't know
Peer assessment of tricky wordsChild A is the teacher, Teacher writes words from Child B's template onto mini whiteboard and tests the Child B. Children given responsibility for own learning. Teacher asks them to identify the words you need to learn, use the template to write down the words from the word wall and then to test each other. Teacher circulated to support children.

the Twits story. At the end of the lesson the teacher asks a member of each group to explain what they did. He acknowledges to me that the roleplay choice needs more direction and guidance. Choice Board: Use of choice broad **Lesson on sight words (15th June):** on the whiteboard based on story class Teacher gave class choice of sitting has read together. She has used the where they like this week and reported choice board once previously and it was working well showed me children's work displayed Teacher told children that everyone on the wall that was produced in the was going to get a chance to be the previous lesson. teacher for each other. Teacher 11:40 a.m. Teacher explains choices presents box template for writing to class. Choices: tricky words (3 boxes). Teacher directs class to look at tricky word Crystal Ball (Children draw/write wall – look at the yellow words, pink predictions in a crystal ball etc. Colours indicate levels of template) difficulty, teacher asks each pupil to Shopping List (Children create a look at each level and to decide if shopping list of items for Mr. there's a word they don't know. Wolf's pancakes) Teacher models the activity for class. Talk to a friend (Children talk to a Teacher asks how we can teach each friend about main events of the other the tricky words? What games can we play? Puppets (Children use puppets to Class suggests bingo, whiteboard, act out the story) calling out words to write down The teachers picked lollipop sticks Each pupil was expected to take part with children's names at random and in same activity but teacher had then asked the children to choose an organised mixed ability pairs – tutor activity. The puppet choice was most and tutee without it being overt to the popular and the child with ASD did children. Children given responsibility not get his choice as it was full when for own learning – identify the words his name was picked. He threw a you need to learn, using the template tantrum and the teacher explained this to write down the words from the had happened the last time also. The word wall – testing each other. children were very engaged in the Teacher circulated to support children.

activity. The puppet choice was most popular and the child with ASD did not get his choice as it was full when his name was picked. He threw a tantrum and the teacher explained this had happened the last time also. The children were very engaged in the shopping list task and crystal ball activity. The puppet group seemed to be playing generally and not acting out the story. On discussing the lesson with the teacher afterwards she was concerned about the puppet activity and the children not getting their first choice. I suggested having 2 puppet stations if it is very popular or taking

it out the next time and having a

different choice.

Rebecca

Self-assessment: Each child asked to identify 3 tricky words from the word wall that they don't know
Peer assessment of tricky words

Cooperative learning – peer tutoring

(more teacher intervention needed?

with ASD who had a tantrum,

Teacher was preoccupied with child

working with him and his partner to

ensure he fully participated in the

Appendix J Observation Schedule

Observation Schedule: Senior Infants 10th February Kieran

Underlying Principle (IPAA): difference must be accounted for as an essential aspect of human development

Evidence in practice	Description of teacher practice	Impact of change- degree and quality of change: Teacher's practice
 A. Teaching practices which include <i>all</i> children: 1. Creating environments for learning with opportunities that are sufficiently made available for everyone 2. Extending what is ordinarily available for all learners rather than using strategies that are suitable for most alongside something additional/different for some who experience difficulties 	Teacher reminds pupils of story they read together "The Twits" and how they have discussed their favourite parts. All children choose how to demonstrate their learning and their level of engagement with the tasks.	Critical
B. Differentiation achieved through choice of activity for everyone/other differentiation (support, pace, resources, outcomes, questioning)	Teacher presents choice of activities to demonstrate their favourite part of the story "The Twits". Teacher explains that they are going to do different activities based on their favourite part of the story. Teacher asks them to reflect on their favourite parts and counts down from 10. Teacher explains the activity at each station: 1. Dictaphone: recoding your favourite part (he told me that he had shown the class how to use the Dictaphone previously) 2. Drawing: draw your favourite part of the story 3. Writing: Write about your favourite part of the story 4. Role-play: use the props to act out your favourite part of the story 5. Play dough: create your favourite part using the play dough	Critical

C.	Rejection of ability grouping as main organisation of working groups (Grouping children to support everybody's learning)	Children are initially sitting in mixed ability groups. During choice stations they are allowed to free choice and again are in mixed ability groupings.	Critical
D.	Use of language that expresses the value of all children	Positive, gentle tone of voice. The role-play group become noisy a few times and the teacher intervenes to bring noise levels down by speaking quietly and gently rather than reprimanding	Critical
E.	Use of formative assessment to support learning	Teacher calls on one member of each group at end of lesson to explain what they group did during the lesson. Teacher used questioning to guide children's learning.	Critical
F.	Social constructivist approaches e.g. providing opportunities for children to participate in co-construction of knowledge, situated learning, co-operative learning, gradual release of responsibility	Co-operative learning evident e.g. Children in role-play group collaborate to act out favourite scene together. Children in Dictaphone groups record each other's favourite part and play it back.	Critical
G.	Focusing teaching and learning on what children can do rather than what they cannot do	He circulates and questions children about what they are doing e.g. "which art of the story is this (play dough)" "what are we acting out here" "You're a spider?, are there spiders in the story? We can only act out what's in the story".	Critical

Key: Levels of use relating to IPAA: Non-use, orientation, preparation, technical, accepted, critical (King, 2014)

Appendix K Interview Schedule

Interviewer notes:

- Remind participant of confidentiality and anonymity
- > Permission to record.
- > Outline duration and structure of interview:
- ➤ This interview should take no longer than 30 minutes. It seeks to get your views on your involvement in a professional learning community to develop inclusive practice. The questions will relate to your experience and the impact of the PLC on your teaching and your own learning as well as the pupils in your class. I will check my prompts during the interview.
- > State date, time, place and interview with.....
- Ask participant class they are teaching and how long have they been teaching for (in this school and elsewhere), qualifications and experience of teaching children with SEN.

Baseline:

Motivation for engaging with PD

1. Why did you choose to participate in this study?

Expectations from engaging in PD

2. What did you expect to gain from participating in this study?

PD Experience

- 3. Having engaged in a professional learning community what did you think of this type of professional development?
- 4. How did this form of PD compare to other forms of PD that you have engaged in? (me as a facilitator, frequency of meetings, duration, venue, lecture style)

Diffusion

- 5. Can you see yourself continuing with a PLC in the future?
- 6. What supports would you need in order to continue? Could it work internally, does it need an external leader/facilitator?
- 7. Did this study impact any other teachers in the school?
- 8. Can you see teachers who were not part of this study engaging in a PLC? Why/why not?
- 9. How did your engagement in the PLC impact on any other teachers in the school? Organisational, Cultural and Pedagogical levels

Learning outcomes:

10. Has this study impacted your learning as a teacher? If so in what way? E.g. did you have experience of differentiation by choice previously?

Degree and quality of change:

Organisational

11. How would you describe the impact, if any, on the school as a whole...at an organisational level e.g. policies, new processes or procedures

Teachers' practice

- 12. Has engagement in this study impacted your teaching? If so, in what way?
- 13. Do you think differentiation by choice helped you in developing inclusive practice? If so how? (opportunities for all learners to be included, pupil autonomy, control over learning, motivation, not pre-determining level of engagement, rejection of ability grouping, cooperative learning, formative assessment)
- 14. Did any pupils achieve more or less that you expected when engaged in choice of activities?
- 15. Has your thinking (attitudes/beliefs) about inclusion/inclusive practice/special educational needs changed since you engaged in this study? Why/How?
- 16. Having engaged in this study do you feel more confident/capable in developing inclusive practice? If so, why? To what extent?
- 17. Did participation in the PLC foster collaboration with colleagues? In what ways refer to lesson study, peer observation
- 18. What were benefits and challenges to this type of collaboration?

Student Outcomes

- 19. How do you think your participation in this PLC has impacted on pupil learning in your class? (attitudes/performance and attainment/skills and behaviours)
- 20. Were children engaged in learning or merely participating?
- 21. How much teacher intervention was required to ensure that the children were engaged meaningfully in the choice of activities?
- 22. Do you think differentiation by choice addressed the needs of students with identified needs in your class? Why/why not?
- 23. For the students who you think it did not benefit what supports could be put in place in order for those pupils to benefit?

Systemic factors:

Support: Leadership

- 24. Do you feel support from school leaders is important for professional development?
- 25. Do you feel that school leadership was important in this study? Why?
- 26. Have you felt supported/hindered by school management in participating this study? In what way?

Initiative design and impact

- 27. Do you think the structure of the PD was effective? How could it be improved?
- 28. What were the challenges in engaging in this study? (PLC and Classroom)

Teacher agency

- 29. Did the model of PD allow you to have autonomy and use your own initiative... take risks.... Make changes (agency)
- 30. Did the PLC provide an appropriate forum to extend your learning? To what extent, how?
- 31. What is the greatest impact of the study on your own learning?

Appendix L Plain Language Statement

2nd December 2015

Dear Participant,

I invite you to take part in a study that will investigate how a professional learning community can develop teacher professional learning for inclusive practices. This intervention will be aimed at supporting teachers to develop inclusive practices to meet the diverse needs of their pupils, specifically in literacy. The professional learning community will meet to discuss and problem solve issues around inclusive practices in the classroom.

The study will involve gathering information by means of a survey at the beginning and at the end of the study. Each survey should take no more than about fifteen minutes to complete. The purpose of the initial survey is to collect information on the participants' experience of inclusive education to date. The purpose of the second survey is to collect information on the participants' experience following their engagement in the professional learning community.

Participants will be invited to take part in an interview at the end of the research study. The interview will last about thirty minutes. The purpose of the interview, should you agree to do it, is to collect more detailed information from you on your actual experience of engaging in the professional learning community. The interview will be recorded on a digital audio device to help me as I write up the findings from the interview. During this study I would also appreciate the opportunity to visit some classrooms during literacy teaching time.

The information collected will be used to help me evaluate to what extent a professional learning community can contribute to the development of teacher professional learning for inclusive practices. All participants will be invited to a feedback session which will take place in September 2016. The purpose of this session will be to provide you with the findings of the study.

The findings of this research will appear in a thesis and may be published. Information supplied is subject to the established legal limitations on confidentiality. Your name will not be used in any part of the study, including the final report and in any subsequent publications. You can withdraw at any stage of the study if you feel in any way uncomfortable about your participation and any data that you have provided will not be used in the study.

If you require more information please feel free to contact me or my supervisors. The contact details are listed below.

Yours sincerely, forte Bremon

Aoife Brennan

Contact Details

Aoife Brennan

Email: aoifebren@gmail.com

Supervisor: Dr Joe Travers St. Patrick's College (DCU) Email: joe.travers@spd.dcu.ie

Co-Supervisor: Dr Fiona King St. Patrick's College (DCU) Email: fiona.king@spd.dcu.ie

Appendix M Consent Form for Participants

Research Title: To what extent can a Professional Learning Community develop teacher professional learning for inclusive practice

Purpose of the Research: To investigate how a professional learning community can develop teacher professional learning for inclusive practices

Requirements of Participation in Research Study: You are invited to participate in a professional learning community. You are invited to complete a survey at the beginning and end of the study as well as an interview at the end of the research study. You are also invited to engage in observation of practice (there is no obligation to participate in observation of practice).

Before signing the consent document, please read the following statement. Circle Yes or No for each statement.

1.	The purpose and nature of the evaluation study has been explained to me in writing and I have read this/this has been read to me.	Yes / No
2.	I understand the information provided.	Yes / No
3.	I have had an opportunity to ask questions and discuss this study.	Yes / No
4.	I have received satisfactory answers to all of my questions.	Yes / No
5.	I am participating voluntarily.	Yes / No
6.	I give permission for audio recording of my engagement in an interview.	Yes / No
7.	I understand that I can withdraw from this research study, without repercussions, at any time, and any data I have provided will not be used in the study.	Yes / No
8.	I understand that I can withdraw permission to use the data within two weeks of the interview, in which case the material will be deleted.	Yes / No
9.	I understand that confidentiality will be ensured in the write-up by disguising my identity.	Yes / No
10.	I understand that extracts from the PLC meetings, group messaging forum and my interview may be quoted in the research project, however, names and places that might identify someone will be removed.	Yes / No
Based	on the information provided I agree to participate in the study	Yes / No

Participant's Signature:	Witness:
Name in Block Capitals:	Date:

Appendix N Consent Form for Participant Observation

Research Title: To what extent can a Professional Learning Community develop teacher professional learning for inclusive practice

Purpose of the Research: To investigate how a professional learning community can develop teacher professional learning for inclusive practice

Requirements of Participation in Observation: You are invited to participate in researcher observation. The purpose of the observation is to ascertain how inclusive practice is enacted in the classroom.

Before signing the consent document, please read the following statement. Circle *Yes* or *No* for each statement.

1.	I understand that I can withdraw from this observation, without repercussions, at any time, and any data I have provided will not be used in the study.	Yes / No
2.	I understand that confidentiality will be ensured in the write-up by disguising my identity.	Yes / No
3.	I understand that field notes from the observation will be referred to in the research project, however, names and places that might identify someone will be removed.	Yes / No
Based	on the information provided I agree to participate in observation	Yes / No

Participant's Signature:	Witness:
N ' DI 1 C '- 1	D.
Name in Block Capitals:	Date:

Appendix O Codebook - Phase 2 - Generating Initial Codes (Open Coding)

Phase 2 Coding	Description	Sources	Units of Meaning Coded
Ability	Participants' views of ability labelling, notions of fixed ability, expectations of ability	11	15
Agency	Evidence of participants adapting the new practice to suit own context, use of autonomy in implementing new practice	5	5
Challenges to differentiation through choice	Children who did not respond to differentiation through choice or struggled with choice	6	9
Confidence Efficacy	Improved teacher confidence and/or competence in capability to include all learners	9	18
Desired Supports	Extra supports that could help facilitate inclusion in the classroom	5	8
Differentiation though Choice	Participants' experiences of implementing differentiation through choice	11	27
Challenges to differentiation through choice	Challenges to implementing differentiation though choice in the classroom	7	16
Positive Impact Differentiation by Choice	How differentiation by choice impacted the development of inclusive practice positively	9	23
Diffusion	Diffusion of new practices to teachers outside of the PLC	13	29

Phase 2 Coding	Description	Sources	Units of Meaning Coded
Expectations	Participants' expectations of engaging in the PLC	9	9
External Support	Participant views of support for inclusive practice from outside the school - researcher as PLC facilitator	11	15
ITE Preparedness for Inclusive Practice	How participants felt ITE had prepared them for inclusive practice	7	7
Learning Outcomes-Pupils	Participants' views of how engagement with PLC impacted on pupil learning	10	32
Learning Outcomes-Teachers	Teacher learning resulting from participation in PLC	10	40
Lesson Study	Views of strengths and challenges of engaging in lesson study to develop inclusive practice	3	4
Challenges to lesson study	Challenges to teachers engaging in lesson study	9	16
Positives relating to lesson study	Positive impact of engagement with lesson study	7	15
Motivation for Participation	Motivating factors for teacher participation in the PLC	11	12
Multiple modes of learning	Pupil display of learning through a variety of means	3	3
Resources - Booklet	Teachers' views of how the differentiation booklet supported inclusive practice	4	5

Phase 2 Coding	Description	Sources	Units of Meaning Coded
Shared ideas and planning	Reference to sharing ideas and/or planning within the PLC and outside of the PLC	6	14
Structure of PLC	Participants' views of how the PLC was structured, time of PLC, the experience of the PLC	18	51
Challenges to engaging in the PLC	Challenges to PLC engagement that participants experienced	13	18
Time for new practice	Challenge of finding time to try new practices or to develop practice	3	5
Time for PLC	The challenge of finding time to engage in PD	5	6
Positives	Initial satisfaction with PD experience and comparison with other models of PD	13	31
Support Leadership	How the school leadership supported teacher engagement with the PLC	10	19
Sustainability of the PLC	Factors that influenced the sustainability of the PLC	5	12
Team teaching	Implementation of new practices through team teaching	7	11

Appendix P Codebook - Phase 3 - Searching for Themes (Developing Categories)

Phase 3 Coding	Description	Sources	Units of Meaning Coded
Agency	Teacher's opens and willingness to develop new practice, teacher autonomy in the implementation of new practices	8	12
Barriers to inclusive practice	Barriers to inclusive practice that are noted by teachers/leadership	5	8
Collaboration	Impact of PLC on collaboration in the school	11	62
Lesson Study	Use of lesson study to aid the implementation of new practices	10	35
Challenges to lesson study		9	16
Positives relating to lesson study	Positive impact of lesson study on teacher learning for inclusive practice	7	15
Shared ideas and planning	Shared lesson planning or discussion sharing of ideas or what has worked in the classroom	7	16
Team teaching	How PLC impacted team teaching, how team teaching was use to implement new practices	7	11
Expectations	What participants expected to gain from the PD experience	9	9
ITE Preparedness for Inclusive Practice	How participants felt ITE prepared them for inclusive practice	8	8
Motivation for Participation	Motivating factors for participation in the PLC	11	12

Phase 3 Coding	Description	Sources	Units of Meaning Coded
PD experience	Participants view of engagement in PLC overall	18	87
Challenges to PD experience	Challenges to PLC engagement	14	19
Time for new practice	Finding time to try new practices or to develop practice	3	5
Time for PLC	The challenge of finding time to engage in PLC	5	6
Resources - Booklet	Participants views of how differentiation booklet supported implementation of new practices	5	6
Satisfaction	Initial satisfaction with PD experience and comparison with other models of PD	13	31
Structure of PD Sustainability	What participants felt was needed to continue with PLC	1	4
Support	Factors that supported the development of the PLC	11	25
External Support	Participant views of external support to PLC (researcher as facilitator)	11	16
Suggested supports for inclusive practice	Other supporting factors that would help development of inclusive practice	6	9
PD Impact on wider school	impact of the professional development on any other members of staff	13	29
Student outcomes	Impact of PLC on pupils in the classroom - attitudes and dispositions, performance and attainment, skills and behaviours	13	53

Phase 3 Coding	Description	Sources	Units of Meaning Coded
Children who had difficulty with choice	Children who participants had difficulty including through differentiation through choice	6	9
Negative or no impact	How differentiation by choice impacted the development of inclusive practice negatively	8	17
Positive impact	Positive impact of PLC on pupil learning	13	44
Support Leadership	Any support that came from leadership for the PD	11	20
Teacher professional learning	Evidence of teacher learning for inclusive practice arising from engagement in the PLC (knowledge, skills, attitudes acquired, enhanced or affirmed)	16	104
Beliefs and attitudes	Participants' beliefs and attitudes towards inclusive practice	8	19
Positive Learning Outcomes	Teacher learning resulting from participation in PLC	11	44
Teacher Efficacy	Teacher efficacy for inclusive practice	0	0
Teachers' practice (2)	Reference to implementation of new practices arising from engagement in PLC	12	41

Appendix Q Codebook - Phase 4 - Reviewing Themes (Drilling Down)

Phase 4 Coding	Description	Sources	Units of Meaning Coded
Baseline	Baseline information regarding teacher professional learning for inclusive practice	11	29
Expectations	What participants expected to gain from the PD experience	9	9
ITE Preparedness for Inclusive Practice	How participants felt ITE had prepared them for inclusive practice	8	8
Motivation for Participation	Motivating factors for engaging in PLC	11	12
Collaboration	Impact of PLC on teacher collaboration	11	41
Lesson Study	Impact of PLC on teacher engagement with lesson study approaches	7	16
Professional dialogue	Shared lesson planning or discussion sharing of ideas or what has worked in the classroom - formal or informal	7	14
Team teaching	Impact of PLC on team teaching for development of inclusive practice	7	11
Diffusion	impact of PLC on any other members of staff	13	29
Organisational Support	Organisational factors that supported the development of the PLC	14	41
Agency	Teachers' openness and willingness to engage, teacher autonomy in the implementation of new practices.	8	12

Phase 4 Coding	Description	Sources	Units of Meaning Coded
School Culture	How the school culture helped or hindered the PLC	4	8
Support from leadership	How leadership supported the development of the PLC	11	21
Satisfaction with PD	Participants' satisfaction with engagement in the PLC	14	66
Challenges	Challenges to engaging in the PLC	10	19
Barriers to inclusive practice	Barriers to inclusive practice that are noted by teachers/leadership. Specific barriers for the research school	5	8
Observation fears	Teachers fears about opening up and sharing their practice or engaging in observation.	3	3
Strengths	Participants views of strengths of PLC model and benefits from engaging in PLC	14	47
External Support	How the external support helped the development of PLC.	3	3
Model of PD	Strengths of the PLC as a model of PD	13	33
Resources - Booklet	How the differentiation resource booklet helped the implementation of new practices	6	7
Sustainability	Sustainability of the PLC in the future	1	4

Phase 4 Coding	Description	Sources	Units of Meaning Coded
Student outcomes	Impact of PLC on pupils in the classroom - attitudes and dispositions, performance and attainment, skills and behaviours	14	68
Challenges to pupil engagement in choice	Reported difficulties teachers encountered regarding implementing of differentiation through with some pupils	9	24
Positive impact	Positive impact of PLC on pupil learning	13	44
Teacher professional learning	Evidence of teacher learning for inclusive practice arising from engagement in the PLC (knowledge, skills, attitudes acquired, enhanced or affirmed)	16	116
Teacher beliefs and attitudes to inclusive practice	Impact of PLC on teacher beliefs and attitudes towards inclusive practice	10	21
Teacher Efficacy	Impact of PLC on development of teacher efficacy for inclusive practice	4	7
Teacher knowledge and understanding	Impact of PLC on teacher knowledge and understanding relating to inclusive practice	12	47
Teachers' practice	Impact of PLC on teachers' individual practice in the classroom	13	41

Appendix R Codebook - Phase 5 - Defining and Naming Themes (Data Reduction)

Phase 5 Coding	Description	Sources	Units of Meaning Coded
1. Motivation for participation	Motivating factors for participation in PLC	12	22
1.1. Expectations	Participants' expectations for engaging in PLC	9	9
2. Changes in Teacher Beliefs and Attitudes to Inclusive Practice	Evidence of changes in teacher beliefs and attitudes towards inclusive practice as a result of engaging in PLC.	20	156
2.1 Initial conception of inclusion	Participants beliefs about inclusion at the outset of the PLC.	12	25
2.2. Ability labelling	Evidence of changes in teacher's beliefs relating to ability.	13	26
2.3 Differentiation	Evidence of changes in teacher beliefs about differentiation	15	42
2.3.1 Pupil ownership	Changes to teachers' beliefs about pupil ownership over their work.	11	20
2.4 Multiple means of expression	Changes to teacher beliefs towards providing pupils with options for displaying learning in a way that they feel appropriate.	8	13
2.5 Post PLC concept of inclusion	Changes to participants' beliefs and attitudes towards inclusion at the end of the PLC.	7	29
3. Changes in Teacher Efficacy	Evidence of improvement of teacher efficacy for inclusive practice resulting from engagement in PLC.	17	107

Phase 5 Coding	Description	Sources	Units of Meaning Coded
3.1 ITE preparation	How participants felt ITE had prepared them for inclusive practice - efficacy for inclusive practice after ITE experience.	8	8
3.2 Affirmation	Evidence of how teacher affirmation improved efficacy for inclusive practice	6	8
3.3 Success	Evidence of impact of successful pupil outcomes improved teacher efficacy for inclusive practice.	6	10
3.4 Public sharing of work	Evidence of how sharing of work and practice in the PLC improved teacher efficacy for inclusive practice	14	26
4. Changes in Teachers' Practice in the Classroom	Changes in teachers' practice in the classroom arising from engagement in the PLC.	14	47
5. Changes in Collaborative Practice	Impact of PLC on teacher collaboration for inclusive practice.	15	55
5.1 Professional dialogue	How PLC impacted teacher collaboration through shared lesson planning or discussion sharing of ideas or what has worked in the classroom - formal or informal.	11	24
5.2 Team teaching	How PLC engagement impacted team teaching for inclusive practice.	8	12
5.3 Lesson Study	How PLC impacted teacher collaboration through engaging with lesson study approaches to develop inclusive practice.	8	19
6. Factors that Supported Teacher Change	Factors that supported teacher learning for inclusive practice.	23	181

Phase 5 Coding	Description	Sources	Units of Meaning Coded
6.1 - Structure of PLC	Structure of and design of the PLC	15	31
6.2 - Safe and supportive	How the safe and supportive culture of the PLC supported teacher dialogue and sharing of work.	8	9
6.3 - Role of researcher	The role of external support i.e. the researcher as facilitator in supporting the PLC.	5	6
6.4 - Resources	Provision of practice examples and templates in a differentiation booklet.	8	13
6.5 - Successful pupil outcomes	Impact of PLC on student outcomes	13	47
6.6 - Support from leadership	Leadership support for the PLC	12	24
6.7 - Teacher Agency	Teachers' openness and willingness to engage in the PLC. Teacher autonomy in implementing new practices.	9	15
6.8 - Diffusion	Diffusion of PLC to the wider school.	13	36
6.8.1 - Teachmeet	How the teachmeet supported diffusion of new practices to other members of staff.	4	5
7. Factors that hindered teacher change	Factors that negatively impacted teacher learning for inclusive practice.	19	76
7.1 - 'Busyness of School Life'	Limited time to engage in PLC or implementation of new practices resulting from 'busyness' of school life.	11	16

Phase 5 Coding	Description	Sources	Units of Meaning Coded
7.2 - Challenges to pupil learning	Some pupils displayed difficulties engaging in choice which teachers found challenging in implementation of new practice.	12	31
7.3 - Other Barriers to inclusive practice	Other barriers to inclusion in the school e.g. limited time/access to collaborate with external professionals such as speech therapists/psychologists	5	9

Appendix S Codebook - Phase 5 - Coding by Source Type

Phase 5 Coding X Source Type	Group Interviews	Interviews	Observations	Participant Reflections	Researcher Notes	Participants	Total Interviews/Observations, Researcher Notes and Reflections coded	Units of Meaning Coded
1. Motivation for participation	1	10	0	0	1	11	12	21
1.1. Expectations	0	9	0	0	0	9	9	9
2. Changes in Teacher Beliefs and Attitudes to Inclusive Practice	1	10	3	2	4	14	20	84
2.1 Initial conception of inclusion	1	9	0	0	2	10	12	23
2.2. Ability labelling	0	7	3	1	2	10	13	21
2.3 Differentiation	1	10	2	1	1	13	15	36
2.3.1 Pupil ownership	1	7	1	1	1	9	11	17
2.4 Multiple means of expression	0	5	1	1	1	6	8	11
2.5 Post PLC concept of inclusion	1	6	0	0	0	7	7	29
3. Changes in Teacher Efficacy	1	9	0	3	4	10	17	63
3.1 ITE preparation	0	8	0	0	0	8	8	8
3.2 Affirmation	1	4	0	1	0	5	6	7
3.3 Success	1	3	0	0	2	4	6	8
3.4 Public sharing of work	1	7	0	3	3	8	14	14

Phase 5 Coding X Source Type	Group Interviews	Interviews	Observations	Participant Reflections	Researcher Notes	Participants	Total Interviews/Observations, Researcher Notes and Reflections coded	Units of Meaning Coded
4. Changes in Teachers' Practice in the Classroom	1	8	2	0	3	11	14	44
5. Changes in Collaborative Practice	1	10	0	3	1	11	15	43
5.1 Professional dialogue	1	7	0	3	0	8	11	19
5.2 Team teaching	1	6	0	0	1	7	8	11
5.3 Lesson Study	1	7	0	0	0	8	8	19
6. Factors that Supported Teacher Change	1	10	1	7	4	14	23	130
6.1 - Structure of PLC	1	10	0	4	0	11	15	22
6.2 - Safe and supportive	1	4	0	3	0	5	8	6
6.3 - Role of researcher	1	2	0	1	1	3	5	4
6.4 - Resources	1	4	0	2	1	6	8	7
6.5 - Successful pupil outcomes	1	9	0	1	2	11	13	44
6.6 - Support from leadership	0	10	0	1	1	10	12	20
6.7 - Teacher Agency	0	7	1	0	1	8	9	14
6.8 - Diffusion	1	10	0	0	2	11	13	28
6.8.1 - Teachmeet	0	3	0	0	1	3	4	4
7. Factors that hindered teacher change	1	9	1	5	3	11	19	51

Phase 5 Coding X Source Type	Group Interviews	Interviews	Observations	Participant Reflections	Researcher Notes	Participants	Total Interviews/Observations, Researcher Notes and Reflections coded	Units of Meaning Coded
7.1 - 'Busyness of School Life'	0	7	0	3	1	7	11	10
7.2 - Challenges to pupil learning	1	6	1	2	2	8	12	27
7.3 - Other Barriers to inclusive practice	0	5	0	0	0	5	5	9

Appendix T SPSS Data Analysis: Significance of Changes in Variables

	Concernacce pt - Concerns about peers acceptance	Dread thought ending up with disability – Dread thought that I could end up with disability	verbally should be in mainstream	Concerned that it will be difficult to give attention – Concerned that it will be difficult to give attention	Tend to make contact with people w/disabilities brief - Tend to make contact with people w/disabilities brief	Students who are inattentive should be in regular classes – Students who are inattentive should be in regular classes	Concerned that workload will increase if students w/dis in class - Concerned that workload will increase if students w/dis in class	Student who require commun tech should be in reg classes - Student who require commun tech should be in reg classes	l would feel terrible if l had a disabilty – l would feel terrible if l had a disabilty
Z	-1.342 ^b	378 ^b	816 ^c	.000 ^d	-1.134 ^c	-1.134 ^c	.000 ^d	-1.633 ^c	577 ^b
Asymp. Sig. (2- tailed)	.180	.705	.414	1.000	.257	.257	1.000	.102	.564

a. Wilcoxon Signed Ranks Test

rest statistics

Concerned re increased stress – Concerned re increased stress	Afraid to look directly at person w/dis - Afraid to look directly at person w/dis	Students who frequently fail exams should be in reg classes – Students who frequently fail exams should be in reg classes	Difficult to overcome initial shock when meeting severe dis – Difficult to overcome initial shock when meeting severe dis	Concern re. lack of knowledge and skills - Concern re. lack of knowledge and skills	Students who need individualise d programmes should be in reg lcasses – Students who need individualise d programmes should be in reg lcasses	I can make my expectations clear re behaviour – I can make my expectations clear re behaviour	l am able to calm disruptive student - l am able to calm disruptive student	I can make parent feel comfortable coming to school – I can make parent feel comfortable coming to school	I can assist families in helping children – I can assist families in helping children
-1.342 ^b	-1.134 ^c	577 ^c	.000 ^d	743 ^b	-1.000°	412 ^b	-1.732 ^c	-1.414 ^b	707 ^c
.180	.257	.564	1.000	.458	.317	.680	.083	.157	.480

I can guage comprehensi on of taught – I can guage comprehensi on of taught	l can provide appropriate challenges – I can provide appropriate challenges	Confidence preventiving disruptive – Confidence preventiving disruptive	l am confident in getting parents invovled in school a - I am confident in getting parents invovled in school a	I am confident in designing learning tasks to meet individual needs - I am confident in designing learning tasks to meet individual needs - I am coefficient in designing learning tasks to meet individual needs	I can get children to follow class rules – I can get children to follow class rules	I can collaborate with other professionals in desiging ed plans – I can collaborate with other professionals in desiging ed plans	I am able to work jointly with other professionals in teaching - I am able to work jointly with other professionals in teaching	l am confident in my ability to get students working in pairs or groups – I am confident in my ability to get students working in pairs or groups	l can use a variety of assessment strategies – I can use a variety of assessment strategies	I am confident in informing others re laws and policies inclusion – I am confident in informing others re laws and policies inclusion	I am confident in dealing with students who are physically aggressive - I am confident in dealing with students who are physically aggressive	I am able to provide alternative explanantion s or examples - I am able to provide alternative explanantion s or examples
-1.000°	-1.300°	557 ^c	-1.414 ^c	-1.633°	816 ^b	707 ^c	447 ^c	378 ^b	378 ^b	496 ^c	425°	.000 ^d
.317	.194	.577	.157	.102	.414	.480	.655	.705	.705	.620	.671	1.000

b. Based on positive ranks.

c. Based on negative ranks.
d. The sum of negative ranks equals the sum of positive ranks.

Appendix U

Differentiation

Overview and sample activities for differentiation by choice



Differentiation Booklet: Sample Extracts



Ref: NCCA (2007)

Differentiation Booklet: Sample Extracts

For effective differentiation it is important to:

- Know your students their interests, preferred learning modalities, current level of knowledge and skills. Use assessment tools such as: teacher observation, checklists, concept mapping, KWL, standardised tests, work samples, questionnaires on interests and learning modalities, conferencing.
- **2. Organise your classroom –** physical environment, flexible grouping, agreed procedures/systems to facilitate independent learning.

Differentiation by Choice: Offering choice in responding to topics can cater for different stages of readiness, learning modalities/multiple intelligences/learning interests.

Sample differentiation by choice activities:

Choice Boards/Think-tac-toe boards

Choice boards or Think-tac-toe boards are grids that offer a choice of activities to students. The teacher chooses activities that will demonstrate the student's learning after a topic has been taught. Choice boards complement a child-centred approach to learning, in that the student is motivated through the power of choice. They encourage independent learning using a structured approach and enable the teacher to provide controlled choices to the children in his/her class. The choices should focus on student learning goals and cater for different abilities and learning modalities through subtle differentiation. (See examples in folder)

Choice centres: Offer choice to students within station work/learning centres. Before the activities allow students to place lollipop stick/card with name under their free choice. Alternatively give out a schedule for learning centres with 'must do' stations and free choice stations. If students finish an activity before it is time to move on, ensure there is something meaningful to do e.g. a reflection task. Display a checklist of rules and appropriate behaviour.

Learning contracts: Teacher and student negotiate and agree on learning tasks to be completed within a certain time period. Each student has a contract or grid of activities to complete over a period of time. There may be free choice boxes or optional activities as well as core activities that must be completed. For example, three times a week students are given a time to complete a task of their choosing. (See example in folder)

Learning menus: similar to above but activities are arranged in categories e.g. Main courses (activities everyone completes), Side dishes (choose 1/2) Dessert: Optional (template in folder)

Open-ended tasks: are tasks to which there is not a single absolutely correct answer or where a variety of answers are possible. They can be distinguished from 'closed tasks', where students have to answer in a particular way. *Example of open-ended task in literacy:* students are asked to imagine a person standing in a pair of shoes which they are shown

and then to write a description of that person. Since there is no single correct or fixed answer, the students can often answer at the level of their readiness.

Numeracy example:

Example 1: Choose two numbers, shapes, graphs, probabilities, measurements etc. and ask students how they are alike and how they are different: e.g. How are 95 and 100 alike? How are they different?

Example 2: Look at the magazines and newspapers. Cut out at least 5 numbers. Arrange and paste your numbers in order from the greatest to the smallest on a piece of paper. Explain your ordering process. Open-ended tasks also allow you, the teacher, to get a good idea of what the students are capable of producing.

Other tools for differentiating:

Bloom's taxonomy: Use of Bloom's Taxonomy to extend questioning and ensure use of higher order questions

- Allow children time to think
- Think, Pair, Share.....Square
- Challenge children to generate questions

Flexible grouping for children:

Clock Buddies, Seasonal Partners (see folder)

Numbered heads: Teacher writes numbers or draws shapes for each group on lollipop sticks. Each child in the group chooses a stick with a shape/number, think, pair share. Teacher has own set of lollipop sticks with numbers/shapes and randomly selects them. Child with corresponding shape/number reports back from group.

Self-assessment: The teacher can encourage the child to think about his/her own work using guiding questions, tools or aids such as:

- Learning intentions (WALT) and success criteria (WILF)
- Rubrics and checklists
- KWL grids
- Plus, Minus and Interesting (PMI) diagrams, traffic lights, 2 stars and a wish, learning logs
- Talk partners/buddies

^{**}See also activities differentiated according to Bloom's Taxonomy**

Appendix W Differentiation Booklet Extract: Choice Board Examples

Choice Board for Comprehension

Make 3 predictions –	Use a Y Chart to create	Determine the 3 main
Before, during and after	images of your favourite	points of this text (3
reading	part of the text	VIPs – very important
		points)
Make a connection		Draw a Venn diagram
between the text and:	Devise 3 questions based	to compare
your own life	on the text:	similarities and
another text	1. I wonder	differences between
using a double entry	why/what/when/	the main characters
journal	who/where	
Make an inference:		
about why a character	Make a poster/comic strip	Compose a song or
did something that the	that shows the	poem based on one of
author did not explain	order/sequence of events	the main events or a
the reason for.	in the story	character from the
		story

Comprehension Choice Board: Junior

Draw your prediction in the Crystal Ball	Draw/write your connection to the story	Use a Y Chart to create images of your favourite part of the story
Put the pictures of the story in order	Talk about the main events of the story with your friend	Create a different cover for the book
Design a character from the story using márla	Act out a scene from the story using puppets	Create a piece of music to accompany the story

Choice board for reading responses: choose one activity from each row

Complete an Alphabox based on the text	Be a word detective: list all the words with prefixes in the text	Do a vetting and valuing vocabulary activity
Complete a "Hands Down" for the text you have read	Draw a concept map based on the main points of the text	Write a summary of the text using bullet points
Design a scene from the story using clay/art materials	Act out a scene from the story with a partner	Use photostory/ Powerpoint to retell the story

Choice Board for reflecting on new information

Write a journal entry to put new idea in your own words	Draw a picture or diagram to illustrate the concepts	Use a "hands down" to illustrate ideas and chunk information
Mentally rehearse or review what was said or what it sounded like	Visualise and create a mental movie to remember what it looked like	Write a song or jingle to remember the steps involved
Create a hand jive rhythm to remember the key points	Write down questions you have	Create an exit card by writing 3 things you learned or thought about during the lesson



MENU PLANNER

Menu:
Due : All items in the main dish and the specified number of side dishes must be completed by the due date You may select among the side dishes, and you may decide to do some of the dessert items, as well.
Main Dish (Complete all)
1.
2.
3.
Side Dish (select)
1.
2.
3.
Dessert (Optional)
1.
2.
3.

Appendix X Lesson Plan and Menu (Niamh) with Observation Notes

	Date: April 2016	Class level: 3 rd	Subject: English/S.E.S.E	
	Strand: - Receptiveness to language	Strand Unit: Oral: developing receptiveness to oral language • Reading: developing strategies • Writing: creating and fostering the impulse to write		
	- Competence and Confidence in using language	Oral: developing competence and confidence in using language in using oral language • Reading: reading for pleasure and information • Writing: developing competence, confidence and the ability to write independently		
	Developing cognitive abilities through language	Oral: developing cognitive abilities through language • Reading: developing interests, attitudes, information retrieval skills and the ability to think • Writing: clarifying thought through writing		
	- Emotional and imaginative development through language	Oral: developing emotion Reading: responding to te life through writing	nal and imaginative life through oral language • ext • Writing: developing emotional and imaginative	
	■ Learning activities: The theme is The Titanic. The class will study and research this topic over a two week period. Learning will take place during Literacy Team-Teaching sessions. Six 45 minute sessions with 3 teachers over the two week period. Children will work in groups of 8 with 1 teacher assigned to each group. Initially children will work is ability-based groups. Session 1: Working on the KWL chart. Group reading of The Titanic information pack. Session 2: Recalling main points from previous session. Reading diary and newspaper extracts as a group ther as pair work. Session 3: Completing Titanic Bubble Maps and finishing KWL Chart Session 4 = 6: Children are introduced to the Menu planner which will contain a selection of written activities, they will have a set of activities they can choose to complete by a certain date. Each group will be supervised by their team teacher as they work on these activities. Children will be asked if they would like to read their finished piece aloud to their group and the end of the session. Other group members will give positive feedback on same. ■ Resources:			
	Pack Packs, Library	DOORS, K.W.L. Charts, Newspa	per Articles, Fact Sheets, Teacher-Designed Activity	

■ Differentiation

By Support: Children will initially work in ability-based groups. Each group of 8 will be supported by a teacher.

By Pace: Each group will work at a different a pace, for example, the high-ability group will strive to work at a fast pace, however, other groups were learning difficulties are more evident will need to work at a slower pace and

By Outcome:

By Choice: See Menu planner Writing Activity Pack

By Dialogue:

By Outcome:

By Task:

■ Assessment:

Observation, correction of teacher-designed writing activity pack, samples of work

■ Linkage and Integration:

S.E.S.E

Reflection:

The menu planner worked really well because all of the children in the group identified an activity that they wanted to complete This enabled everyone in the group to start working immediately. By the time they got around to tackling tasks they weren't as comfortable with, they gottmideas and hints from peers who had completed those tasks.

The years planner worked well because the children were immediately, all to the tasks.

the year planner worked well because the children were immediately able to won take control of their own work the choices were varied and bathen each choice the child was able to work at his of her own level.

(team-kading (allegnes)



Menu Planner

Due: Friday 29th April

All items in the main dish and the specified number of side dishes must be complete by the due date. You may select among the side dishes and you may decide to do some of the desserts, as well.



Main Dishes (complete all)

- 1. Diary Entry
- 2. Newspaper Article
- 3. Fact Sheet



Side Dishes (Select 1)

- 1. Story Writing
- 2. Interview with a passenger



Desserts (Optional)

- 1. Design a movie strip
- 2. Short paragraph about what may have happened if the Titanic had made it to New York